Format Your Own Damned Book

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1. Introduction

I recently helped an author format her ebook for publication and realized once again that for an author I'm a pretty talented book formatter, and that if I wanted to make money in the book publishing racket I'd make more formatting other people's books than I ever will writing my own.

I program computers as my day job so the process of book formatting comes easily to me. It does not come so easily to others. There are a lot of details that aren't that hard if you take them one at a time, but which might seem overwhelming to someone who wants to learn them all at once. For that reason, I did some blog posts on Goodreads which led to the book you are reading now.

If you self publish you will have many opportunities to spend money on your book. For example (all these are from the Create Space website):

- Simple Interior Formatting for a printed book: $249
- Custom Interior Formatting for a printed book: $349
- Custom Book Cover: $399
- Copy editing (proofreading): $160 up to 10,000 words
- Line editing: $210 up to 10,000 words
- Kindle Conversion: $79
- Complex Kindle Conversion: $139
- Kirkus Review: $425 - $575
- Marketing Copy Essentials: $249

All of these things may be worthwhile for some authors. If an established author decided that he could make more money by self publishing he might be justified in paying for all of this stuff. For him it would be an investment. For the rest of us, it might be like the Gold Rush, where the guys that got really rich did it by selling beans to the miners.

Self-publishing a book is like a home improvement project. You *could* pay professionals to do everything, but if you're like me you'll do at least part of the work yourself. When making the decision of what I'll do and what I'll hire out I use two criteria:

1. Does the task look like something I could do? I'll check out *YouTube* for how-to videos and look at other websites before deciding this.

2. How bad are the consequences of doing it wrong?

I recently replaced an ugly light fixture in our kitchen ceiling. Not only was it ugly, it was barely hiding some serious water damage. Using my two criteria, I figured out that removing the old fixture and wiring up the new one were things I could do myself, and fixing the water damage and repainting the ceiling were best left to a professional. My wiring job was not trouble free, but at worst I was risking a tripped circuit breaker. (I actually broke part of the new fixture and had to order replacement parts, but nothing made me regret doing the wiring myself).

On the other hand, I've experienced painting ceilings and a botched job there would have been *really* regrettable and expensive to fix.

Maybe you can paint a ceiling better than Michaelangelo, but are terrified of electricity. In that case you would have made the opposite decision, and that would have been the right one for you.

Now consider using the same criteria for deciding what to do yourself when you publish your book. This book will give you some idea of the work involved for each task. Some tasks are harder than others, and some of the tasks might even be fun. You can decide for yourself which you'd like to try.

What are the consequences of choosing badly? **None**. You can always get a professional to redo anything you gave up on or which went wrong. If you publish a book on Create Space you might end up spending a few dollars on some ugly proof copies, and that's really it. You don't need to buy hundreds of copies of your badly formatted book. You just need to buy one, at the author price. Nothing gets published until you're ready to publish.

For ebooks you don't even have to do that much. If you follow my instructions you can read your own fully formatted book on your own Kindle *before* submitting it to the Kindle Store. No customer will see it until you're happy with it yourself.

I format all my own books, both for e-readers like the Kindle and Nook, and for printed books using Create Space. I design my own covers, using free fonts, public domain art, and free graphics software. I also use a free word processor, Libre Office, and a free ebook editor called Sigil. I don't pay editors and reviewers, and I write my own book descriptions.

As a result of this I can publish a book cheaply, and I can teach you how to do the same thing.

I have not had great success as an author, but I don't need to. I have a day job that pays the bills. If I had really hoped to make a living as an author maybe I'd be better off working with a traditional publisher. They would take care of promoting and distributing my book, editing, cover design, etc. If they thought my writing was beyond hope they would let me know.

If you're self publishing a book you need to be honest with yourself as to why you're doing it. Self published books don't appear on book tables at Costco, don't get sold in bookstores, don't get big advances, and don't get selected for Oprah's Book Club. If you think your book deserves these things then you need to work with a traditional publisher.

If you're convinced that your book deserves these things but you don't want them then you're crazy.

There are good reasons to self publish a book, and in my opinion most of these reasons should make you want to do it as cheaply as possible. Here are some examples I can think of:

1. The book deserves to exist, but is not likely to find a large audience.

   I wrote some manuals for the *One Laptop Per Child* project. They were aimed at teachers and children who didn't have much money to spend on books. In fact, they could read the books for free on the Internet. Printed books were pretty much an afterthought; an OLPC conference gave away a few copies as door prizes. The books have been downloaded for free hundreds of times but printed book sales have been negligible.

2. The book has a target audience, but it's small and spread out.

   I wrote a memoir of my experiences in the Hare Krishna movement shortly after I left it in the late seventies. I only did a first draft, using a manual typewriter. Thirty years later I used a word processor to revise it for publication, adding much new material, and created a book called *The Life And Times Of Bhakta Jim*.

   This book has received many good reviews on Amazon, mostly from people who had experiences with the Hare Krishna movement themselves. If I had finished the book the week after the Jonestown massacre I would have had a much larger potential audience, but it would have also been a very different book. The one I published is more of a true coming of age story than an exposé of the movement. These days the movement is more mainstream than the one I had left, so the book had to change too.

3. The book doesn't fit into a recognized genre.

   I wrote a science fiction novel called *Shree Krishna and the Singularity* which is technically science fiction but doesn't follow the usual science fiction conventions because the subjects I wanted to write about (consciousness and Indian philosophy) don't fit into those conventions too well. It isn't a space opera, it isn't a techno thriller, and it isn't a Teen Dystopia. An established author could write a salable book like that, but not a first time novelist.

4. You're a terrible author and you know it, but you still want to be published.

   Maybe for this last one you really should consider paying for professional services.

If you've read this far we can assume that you have a book that you'd like to publish as cheaply as possible. If any part of the process turns out badly you can always pay a professional to do that one part better, but you'd like to take a shot at doing everything yourself first.

Good for you!

Let's begin by identifying some free tools of the trade, which we'll do in the next chapter.

2. Free Tools For Authors

2.1 Free Software

There are many free tools that every self published author should know about. There is no need to spend hundreds of dollars on software. Everything you need to format the interior of your book, create a cover, convert the MS to an e-book in all formats, etc. can be had for free.

To begin with, you'll need a good word processor. If you use a professional editor he may insist on Microsoft Word, but if you have a choice I'd recommend using **Libre Office** to write your books. This free office suite does everything MS Office does, including change tracking, and it can convert your document to a PDF ready to submit to Create Space.

Even if you use another word processor and like it, I'd strongly recommend that you get Libre Office anyway. It's an excellent word processor, it can read and write documents in most other word processor formats, and it is well suited for making the interior pages for a printed book.

Libre Office can be installed on Windows, Linux, or Macintosh.

https://www.libreoffice.org/

Next you'll need a good graphics program for doing cover designs and creating illustrations for your book. The best one is a free program known as the **GNU Image Manipulation Program**, or **The GIMP**. Once you get past the unfortunate name you'll find it can do everything Adobe PhotoShop can do, for free. It also runs on Windows, Linux, and the Macintosh.

https://www.gimp.org/

You'll need an e-book editor to create books in the EPUB format used by the Nook and many other e-readers. The very best one, installable on Windows, Linux, or Macintosh, is **Sigil**:

https://sigil-ebook.com/

Sigil is a bit more work to install on the Macintosh than it is on Windows and Linux. You're going to have to deal with that, because Sigil is an absolutely essential program for e-book authors.

The EPUB format can be uploaded to the Kindle store as is, but if you're smart you'll get the **Kindlegen** utility that converts an EPUB file to .mobi format, ready to install on your Kindle.

https://www.amazon.com/gp/feature.html?docId=1000765211

2.2 Other Resources For Self Published Authors

If you're going to publish a printed book or design your own book cover you'll want a good selection of free fonts, both plain and fancy. The site I use most is **Font Squirrel**:

https://www.fontsquirrel.com/

For book covers you'll want good quality photos and artwork. There are several sites offering to sell you royalty free artwork, but if you can make use of works created before 1923 you can get good cover art for free. The first good source for such art is the **Internet Archive**:

https://archive.org/

A site that links to many other sites containing public domain images is **Open Culture**:

http://www.openculture.com/

NASA has images from the Hubble telescope that are in the public domain and might be useful for science fiction book covers. You can read the terms of use here:

https://www.nasa.gov/multimedia/guidelines/index.html

So go download, install and bookmark all this stuff before going on to the next chapter.

3. E-book Formatting Basics

There is more than one way to turn your manuscript into an e-book. Create Space will take the interior PDF you submit to them, convert it to an e-book, and submit it to Amazon for you. You could use free software called **Calibre** to convert your Word document to an e-book. Finally, if you follow certain rules when formatting your Word document you can use the **Smashwords** website to convert your document and submit it to all the major e-book retailers.

I prefer to do my own e-book formatting. This is a bit more work than the other methods, but it is the only one that gives you full control and lets you see your book as the customer will see it, before you submit it for publication. Best selling authors don't format their own e-books, but you can bet that whoever does the work for them will use the methods I describe in the next few chapters.

There are two dominant formats for e-books: EPUB and MOBI. MOBI is used for the Amazon Kindle, and EPUB is used for pretty much everything else. Since you can easily convert an EPUB file to a MOBI file using Amazon's free **Kindlegen** utility, EPUB is the only format you'll ever need to deal with.

An EPUB file is like a Zip archive that contains web pages. If you've created any web pages using HTML tags you'll quickly figure out how to format an ebook. If you haven't, read on.

Technically, EPUB pages are done as XHTML files. XHTML is like HTML, the tag language used for web pages, but the tags must follow certain rules that make it easier for a computer to deal with them. With HTML you can put tags in any way you like and it's up to the web browser to figure out how to display the page. It is this looseness that makes it possible for a website that looks good in Internet Explorer to be completely unreadable using Firefox. With XHTML you use the same tags that HTML uses, but you have to use them in a specific sequence.

In practice, the tools we use to make web pages enforce that sequence automatically, so the difference between HTML and XHTML isn't that much.

Pretty much every word processor will save a document in HTML format, with the tags in the sequence needed by XHTML, so you shouldn't need to know anything about HTML to make an ebook, right?

Not true. While you will use that feature of your word processor, to get the best results you will need to learn something about HTML. This chapter will teach you what you need to know.

Before you can understand HTML, you need to understand how to correctly use your word processor.

If you're like most people you were never taught how to use all the features of your word processor. If you want to make a chapter heading you select the text and manually format it to be big and bold. If you want the chapter to start on a new page, you manually insert a page break. If you want extra spacing before and after the chapter heading you hit Enter a few times to put in some blank lines. If you want to have a page heading on most pages, but not the first pages of chapters, well you never figured out how to do that. You've seen documents with a table of contents that the author was able to create automatically, but you never got that to work yourself. Also, when you want to indent the first line of a paragraph, you use the Tab key.

Your document may look OK, mostly, but if you submit it to a professional e-book formatter he will have a lot of corrections to make and he will have many unkind thoughts about you while he's doing that.

Your problem is that you don't know about Styles.

Suppose your word processor knew which parts of your documents were chapter headings, which parts were paragraphs, where the front matter of your book was, where the book proper began, and so on. Then the word processor could easily make a table of contents for you, use the right font face and size for your chapter heading, put the right amount of space before and after the chapter heading, make sure that the chapter started on a new page, omit the page heading on the first page of a chapter, number the pages correctly, and even automatically indent the first lines of all your paragraphs.

If you use Styles, your word processor can do all that. They will help you to format your printed book as well as your e-book.

Several of the Styles that come with your word processor correspond to tags in HTML, and those are the ones you need to learn about.

HTML is what is known as a markup language. It is used for both web pages and for e-books, and its purpose is to describe the structure of your document, but not how it will look. In other words, HTML indicates what is a chapter heading, what is a paragraph, what is a block quotation, what is a bulleted list, what is a numbered list, and so on.

Your word processor, web browser and e-book reader will have a default way to display each of these elements, but you can modify the formatting of each element. For now, we'll just look at these elements, and leave customizing their appearance for later chapters.

The structural elements in HTML are:

H1-H5

Chapter headings and subheadings. A novel will likely have just H1, chapter headings, but a nonfiction book might have subheadings as well. Some novels will be divided into Books, with each Book containing chapters. In that case you could use H1 for the book headings and H2 for the chapter headings. If there is a Prologue in your novel it would appear before the first Book and use an H1 heading.

P

The paragraphs that make up most of the book.

Blockquote

If you quote an extended passage from another book you'll put it in a paragraph by itself, and that paragraph will have wider margins than other paragraphs.

Bulleted List

A list of bullet points.

Numbered List

A list of items with sequence numbers.

Image

An illustration

Table

Information in a table with rows and columns.

Preformatted

Pre-formatted text. This is an odd one, used mostly for source code listings of computer programs. Most tags remove extra spaces and line endings from text and re-wrap it to fit into margins, but the **Pre** tag preserves spaces and line endings and displays text in a font where every character is the same width. The HTML and style sheets in this book use the **Pre** tag for ebook formatting.

And that's about it.

So what does this mean to you as an author? It means you need to stop thinking of your word processor as a glorified typewriter. Instead of highlighting your chapter headings and making the font larger and fancier and putting blank lines before and after, you need to give them a Heading 1 style, give subsection titles a Heading 2 style, and so on.

If you do this, your word processor will be able to automatically generate a table of contents for your document. I recommend that you try out this feature of your word processor, because doing that will verify that you did your headings and subheadings correctly.

In MS Word there is a **Styles** ribbon that looks like this:
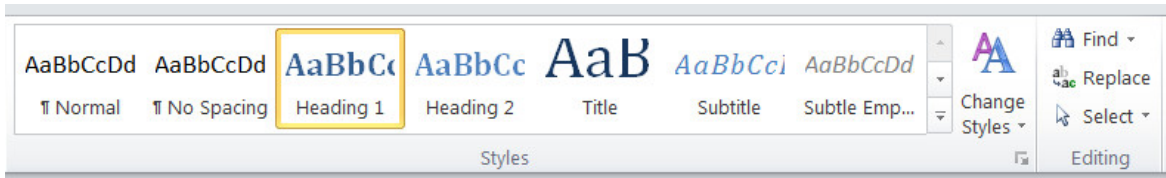
For your chapter headings and subheadings, select the text and click on the appropriate button from this ribbon.

Libre Office has a drop-down list containing the same items.

If you use these Styles to format your book then the HTML generated when you save the book in that format will use the correct tags and will be in good shape to convert to an EPUB.

In the next installment we'll look at what that converted HTML looks like and how to fix it up before making an EPUB out of it.

4. Converting A Word Processor Document To XHTML

4.1 Basic XHTML Documents

I wanted an example of how to convert a word processor document to an XHTML document usable in an e-book, so I created a Word document with a chapter heading, a paragraph, and a block quotation. I then saved it as **HTML, Filtered** using the **Save As...** menu option. I used the **Filtered** option because the other HTML option gives you tags that are not legal HTML. These would be ignored by a web browser but would not be allowed in an EPUB.

When you look at this file with Notepad you'll see this (portions removed for clarity):

```
<html>
<head>
<meta http-equiv=Content-Type content="text/html; charset=unicode">
<meta name=Generator content="Microsoft Word 14 (filtered)">
<style>
<!--
 /* Font Definitions */
 @font-face
     {font-family:Calibri;
     panose-1:2 15 5 2 2 2 4 3 2 4;}
 /* Style Definitions */
 p.MsoNormal, li.MsoNormal, div.MsoNormal
     {margin-top:0in;
     margin-right:0in;
     margin-bottom:10.0pt;
     margin-left:0in;
     line-height:115%;
```

```
      font-size:11.0pt;
      font-family:"Calibri","sans-serif";}
h1
      {mso-style-link:"Heading 1 Char";
      margin-top:24.0pt;
      margin-right:0in;
      margin-bottom:0in;
      margin-left:0in;
      margin-bottom:.0001pt;
      line-height:115%;
      font-size:14.0pt;
      font-family:"Cambria","serif";
      font-weight:bold;}
```

. . . LOTS more of these Styles . . .

```
@page WordSection1
      {size:8.5in 11.0in;
      margin:1.0in 1.0in 1.0in 1.0in;}
div.WordSection1
      {page:WordSection1;}
-->
</style>

<meta name=created content="20161019;203949908339038">
<meta name=changed content="20161019;204919743246354">
</head>

<body lang=EN-US>

<div class=WordSection1>

<h1><span style='font-size:18.0pt;line-height:115%;
font-family:"Arial","sans-serif"'>Chapter One</span></h1>

<p class=MsoNormal>AMONG the priceless teachings that may
be found in the great Hindu poem of the Mahabharata, there is none
so rare and precious as this — "The Lord's Song." Since it
fell from the divine lips of Shri Krishna on the field of battle, and
stilled the surging emotions of his disciple and friend, how many
troubled hearts has it quieted and strengthened, how many weary
souls has it led to Him! It is meant to lift the aspirant from the lower
levels of renunciation, objects are renounced, to the loftier heights
where desires are dead, and where the Yogi dwells in ceaseless
contemplation, while his body and mind are actively employed in
discharging the duties that fall to his lot in life. That the
spiritual man need not be a recluse, that union with the divine
Life may be achieved and maintained in the midst of worldly
```

```
affairs, that the obstacles to
that union lie not outside us but within us — such is the central
lesson of the BHAGAVAD-GITA. </p>
<blockquote style='margin-top:5.0pt;margin-bottom:5.0pt'>
<p class=MsoQuote>The Blessed Lord said: </p>
</blockquote>
<blockquote style='margin-top:5.0pt;margin-bottom:5.0pt'>
<p class=MsoQuote>Whence hath this dejection befallen thee
in this perilous strait, ignoble, heaven-closing, infamous, O Arjuna?
</p>
</blockquote>
<blockquote style='margin-top:5.0pt;margin-bottom:5.0pt'>
<p class=MsoQuote>Yield not to impotence, Partha! it doth not
befit thee, Shake off this paltry faintheartedness! Stand up,
Parantapa!</p>
</blockquote>
</div>
</body>
</html>
```

You need to clean this up before you can use it in an EPUB. The first thing you need to do is get rid of the entire ⟨head⟩ section. This contains styles, which can be used in EPUBs, but we're going to replace these with something much simpler so the original styles need to go.

The other things that we want to remove are all in the format name=value like the ones shown in **bold** below:

```
<body lang=EN-US>
<div class=WordSection1>
<h1><span style='font-size:18.0pt;line-height:115%;font-
family:"Arial","sans-serif"'>Chapter One</span></h1>
```

The tags ⟨div⟩ and ⟨span⟩ don't do anything after that, so they may be removed.

Removing these this gives us this:

```
<html>
<body>
<h1>Chapter One</h1>

<p>AMONG the priceless teachings that may be found in the
great Hindu poem of the Mahabharata, there is none so rare and
precious as this — "The Lord's Song." Since it fell from
the divine lips of Shri Krishna on the field of battle, and stilled the
surging emotions of his disciple and friend, how many troubled
hearts has it quieted and strengthened, how many weary souls has
it led to Him! It is meant to lift the aspirant from the lower levels of
renunciation, where objects are renounced, to the loftier heights
```

```
where desires are dead, and where the Yogi dwells in ceaseless
contemplation, while his body and mind are actively employed in
discharging the duties that fall to his lot in life. That the spiritual
man need not be a recluse, that union with the divine Life may
be achieved and maintained in the midst of worldly affairs,
that the obstacles to that union lie not outside us but within us
— such is the central lesson of the BHAGAVAD-GITA. </p>

<blockquote>
<p>The Blessed Lord said: </p>
</blockquote>

<blockquote>
<p>Whence hath this dejection befallen thee in this perilous
strait, ignoble, heaven-closing, infamous, O Arjuna? </p>
</blockquote>

<blockquote>
<p>Yield not to impotence, Partha! it doth not befit thee,
Shake off this paltry faintheartedness! Stand up,
Parantapa!</p>
</blockquote>

</body>
</html>
```

This document only contains the most basic HTML tags and no Style information and is now ready to be imported into an EPUB using **Sigil**. We will demonstrate this in the next chapter.

It is worth pointing out that most word processors, including the free **Libre Office**, can save your manuscript as an HTML file that you can easily convert to an e-book.

4.2 Special Challenges For E-Book Formatting

You might recall these prices from the first chapter:

- Kindle Conversion: $79
- Complex Kindle Conversion: $139

Let's look at some things that make some books complex to convert to an e-book.

E-books will be read on devices with very narrow screens like Kindles, Nooks, tablets, and even smart phones. Your customers will be able to make the text larger or smaller than the default. If you restrict yourself to headings and paragraphs your book will look good on all of these devices. Unfortunately, there are things that *don't* work well in e-books:

1. Preformatted text. If you must use it, as this book does, keep the lines as short as possible. Sometimes this just isn't possible, especially with source code listings for computer programs. A block of preformatted text should start with a single ⟨pre⟩ tag and end with a single ⟨/pre⟩ tag.

2. Poetry. Not all poetry, but some of it needs to be laid out on the page in a special way that just doesn't work with e-books. I once transcribed a book called *Vidyapati: Bangiya Padabali* for Project Gutenberg where I made the web page version look like the printed book, including the use of hanging indents (where the first line of a paragraph is flush with the left margin and the lines following are indented). This worked OK on the web page but looked awful as an e-book. You can make a hanging indent in HTML with style sheets, but that won't work on the Nook so you have to fake it by inserting non-breaking spaces. When the text is re-wrapped to fit on a narrower screen, those spaces screw everything up. I ended up totally reformatting the poetry to make something readable on a Nook.

3. Tables. Keep them small, with only a few rows and columns. Three or four is the limit.

4. High resolution images. All e-book readers have guidelines about maximum page dimensions in pixels, and if you use 300 DPI illustrations in your manuscript they're going to be way too large for your e-book. Even if your illustrations are a good size for e-books you may need to make an extra effort to include them. When MS Word saves a document as HTML it links to pictures using URL's, which won't work in an EPUB. Libre Office saves your images to .PNG files, which will need to be resized smaller or rotated 90 degrees to be usable in e-books.

5. Tables of Contents. Libre Office produces a TOC that links to the chapter headings in your book when you save a document as HTML that uses a TOC. This might work well for your e-book and it might not. It will contain page numbers, which you'll need to remove.

You can deal with image problems by making a copy of your manuscript file with the images deleted, then use the GIMP to create images as separate JPEG files, put them in the Sigil Images directory, and link to them using Sigil's **Insert File** menu option.

Similarly, you can avoid the use of preformatted text and use non-breaking spaces for indentation instead. Or you can try editing the html file with a text editor and get it to use a single <pre> and a single </pre> **before** importing it into Sigil.

For source code listings, put the code in a public repository like GitHub where the reader can look at it and download it, and maybe leave the code out of the e-book entirely. Source code for computer programs just doesn't work well with e-readers.

Sigil will automatically generate a Table of Contents for your e-book, and you might prefer that one to what Libre Office gives you. If so, make a copy of your document with the TOC removed *before* saving as HTML. You need to remove the TOC while the document is in the original word processor document format. Removing it from an HTML version won't remove everything that needs to go.

5. Using Sigil

Sigil is a free e-book editor that creates EPUB files. It has a plugin called **FlightCrew** that validates your EPUB file, making it easy to find and correct errors before you submit the e-book to a publisher.

It looks like this in action:
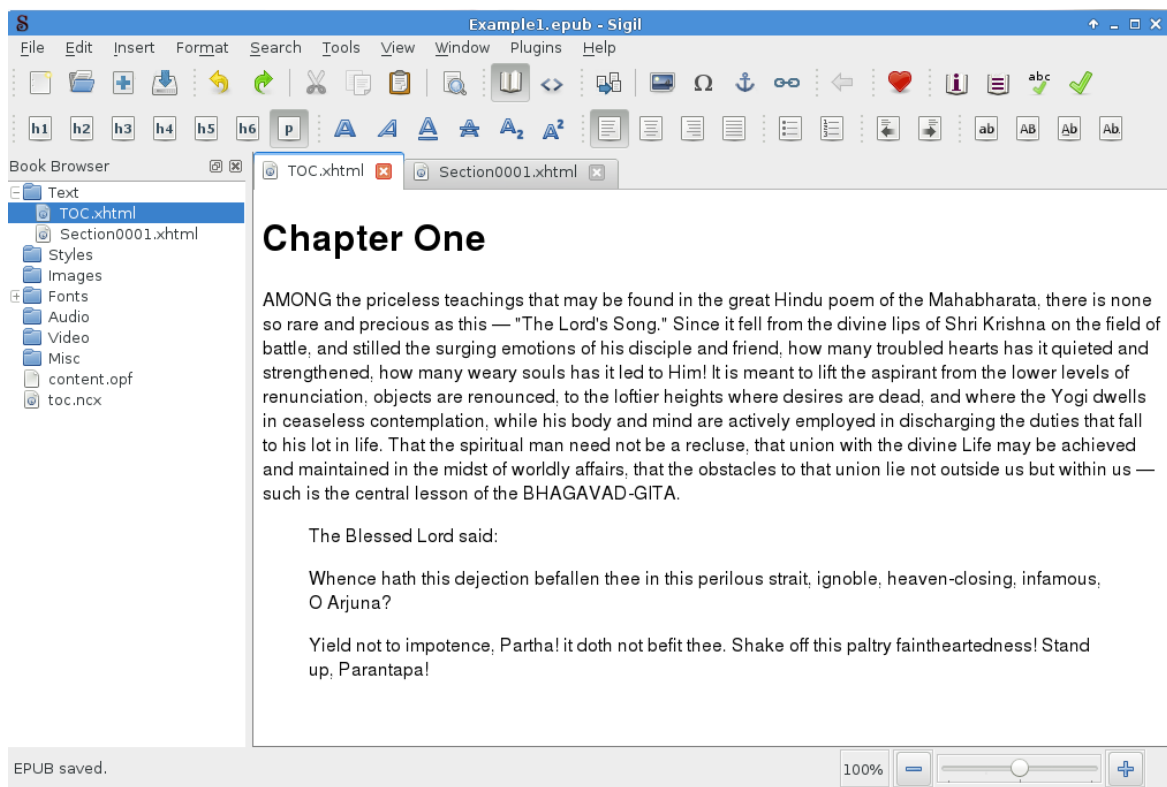
When you first start up Sigil it has an empty **Section0001.xhtml** file in the Texts folder. In the illustration you can see I have used the **Add ->Existing Files...** menu to add my HTML file to that folder. I have cleaned it up as described in the previous chapter, so it is ready to go. I could right-click on the Section0001.xhtml file at this point and delete it. Sigil needs to have at least one file in the Texts folder, but it doesn't care what it is.

When you add a file to the Texts folder Sigil automatically tries to make a valid XHTML document out of it, adding missing tags, rearranging tags that are out of sequence, etc. The better formatted your file is to begin with, the better the results that will come from this process.

Once we've done that we're very close to having a workable EPUB that you could load into a Nook and read. The stuff that's missing is easy to add. First, go to the **Tools -> Metadata Editor...** menu and you'll see this dialog:

The only thing you need to have here is the book title and at least one author. There are a lot of other attributes you could put in, but neither the Nook nor the Kindle uses them so you need not bother.

Next go to **Tools -> Table of Contents -> Generate Table Of Contents...** and you'll see a dialog that lists all your chapter headings and puts check marks next to them. Press **OK** in this dialog and you'll have entries in the right hand side of the Sigil main window referring to your chapter headings.

Once you've done this you can Save the epub file and you have a functional e-book. Run the Kindlegen utility on it and you'll have a functional book for the Kindle.

Neither of these will meet the requirements to publish, but it's worth knowing how to make a minimal EPUB like this because it will be a great help to you as an author. Suppose you're in the process of writing a book. You'd like to take a break from writing new material to go over the stuff you've written so far and make corrections. The first time I was in this situation I bought a large three ring binder and printed off a couple of hundred pages on a laser printer, then punched holes in them and put them in the binder. Needless to say, this was a lot of work.

The next time I had to do this I made a quick EPUB as described here, converted it to Kindle book, and put it on my Kindle. Not only was this faster and less expensive, I had something I could take with me anywhere. I could do line editing while eating lunch. I highlighted passages that I thought needed work, and the Kindle created a document that had all those passages in it.

If you've never done anything with e-books other than buy them in the Kindle Store, you may not know how to put a book file you've made onto your e-reader. It actually couldn't be easier. Every e-reader comes with a wire to charge it, and that wire always ends with a detachable plug. When you remove the plug you'll have a USB connector that you can plug into a USB port on your computer, just like you would a thumb drive. Once you do that, the computer should mount your e-reader as if it was a thumb drive, and you'll be able to look at the files and directories on it. One of those directories will contain a bunch of epub or mobi files. Copy your own epub or mobi file into that directory and unmount the e-reader. The next time you turn it on your book will be there, ready to read.

You'll need a few more things before your e-book is ready to publish:

1. A cover image. Creating those is a subject for another chapter, but for now you need to put an image file in the Images directory and select it to be the cover image by right-clicking on the file name and selecting **Add Semantics...** from the menu.

2. A table of contents page. Sigil will generate one of these for you, based on the H1-H5 tags in your document. See **Tools-> Table Of Contents -> Generate HTML Table Of Contents**.

One other thing that Sigil can do is split your book into multiple .xhtml files. What that buys you is that each file begins at the top of a "page" in the e-reader, so you can make each chapter begin at the top of a page by putting each chapter into its own .xhtml file. This is easy to do. Just place your cursor where you want the split to happen and go to **Edit -> Split At Cursor**.

I strongly recommend that you read the excellent manual for Sigil written by Strahinja Markovic which will be found at:

http://peterloveland.com/development/plant/wp-content/uploads/2015/03/Sigil-0.2.0-Manual.pdf

In addition to helping you create an EPUB, Sigil can also help you find errors in your EPUB and correct them, using a plugin called **FlightCrew**. Depending on the version of Sigil you have, this will either be included or will need to be downloaded and installed separately. Refer to the Sigil website for details.

When you load your EPUB into Sigil there will be a menu option under **Tools** to validate it. After you run the validation you'll see a report like this:
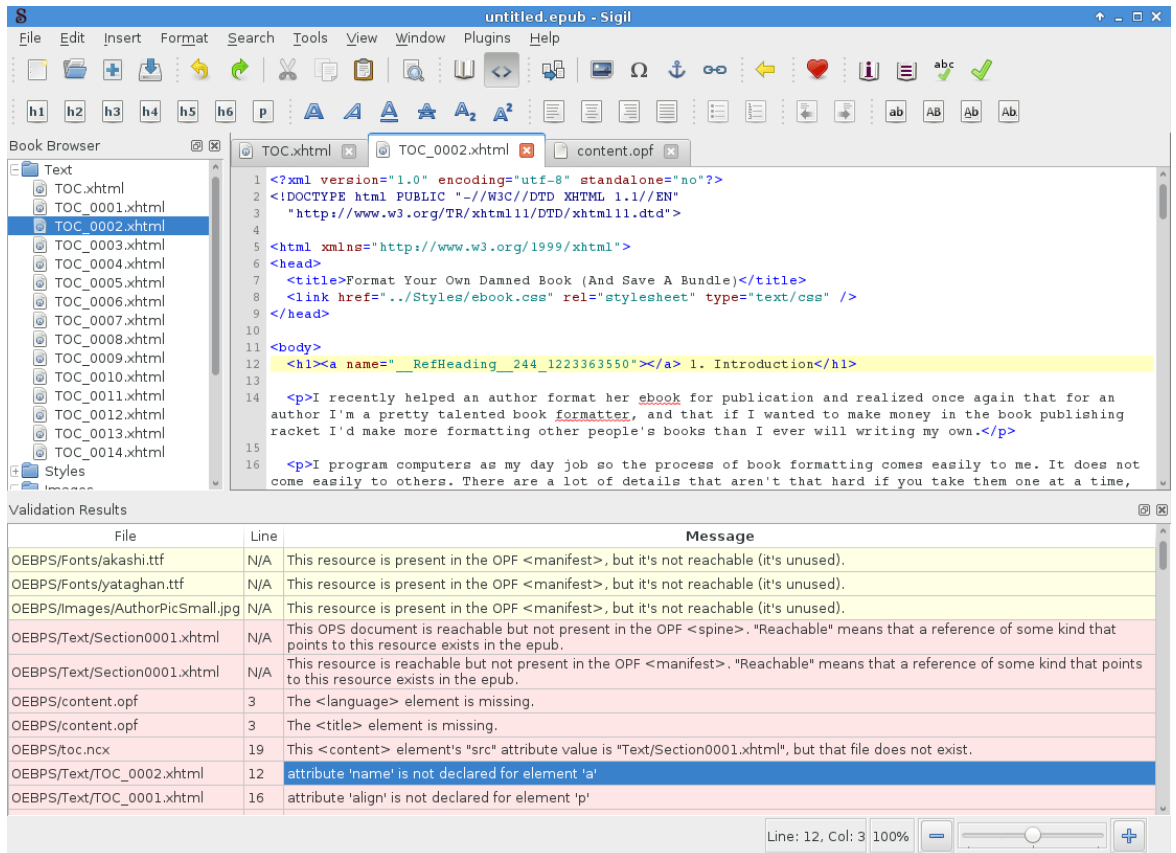
The report starts with yellow lines which are merely warnings, which can be ignored. (In the illustration above I have some fonts and images which are not directly referenced in the EPUB files). These are followed by pink lines which are errors that must be corrected.

The errors shown in the illustration are:

1. The title and language is missing. In this example I had not used the Metadata Editor to put those in yet.

2. The attribute 'name' is not declared (that is, is not legal) for element 'a'. This is the result of using the automatic table of contents in Libre Office, which generates 'anchor' links using the obsolete attribute 'name' instead of 'id'. You can see the ⟨a⟩ tag highlighted in the illustration. All you need to do to fix this is to change the word 'name' to 'id'.

3. In the file that provides a table of contents for the EPUB it refers to another file that isn't in the EPUB. The reason for that is I generated a TOC file using the **Tools->Table of Contents->Generate Table Of Contents...** menu, then renamed a file in the EPUB without regenerating the TOC.

FlightCrew will take you to the line in error when you double-click on the error message. If you follow the instructions in this book your EPUB should have few errors, and those will be simple to fix.

There are some optional things you might add to your EPUB that will dress up your book nicely in the Kindle and the Nook. These are:

1. Add a Style Sheet.

2. Add embedded fonts.

I will cover how to do these things in the next chapter.

6. Style Sheets

Most authors would like their e-books to look as much as possible like their printed books if they have one, or at least like *a* printed book. E-readers like the Kindle that support style sheets make that possible. The Nook also supports style sheets and custom fonts, but will not let you change your paragraph formatting to anything but justified with first line indent and automatic hyphenation. Whatever kind of e-reader your customer has, the good news is that is *never* wrong to use a style sheet. The worst thing that can happen is that her e-reader will ignore it.

As I mentioned previously, headings, paragraphs, block quotes, numbered lists, etc. make up the structure of your document. A heading 1 will always appear in a larger font than a heading 2, and so on.

With e-readers like the Nook and Kindle that fully support style sheets you have more control over the look of the different structural elements, and you can define your own custom styles for things that are not structural elements in HTML, like the title and author of your book on the title page.

The following is a Style Sheet you can adapt for your own e-books:

```
@font-face {
 font-family: Yataghan;
 src: url('../Fonts/yataghan.ttf');
}

@font-face {
 font-family: Akashi;
 src: url('../Fonts/akashi.ttf');
}

p {
 text-align: left;
 text-indent: 0;
 margin-bottom: .5em;
}
```

```
p.title {
 font-family: Akashi;
      font-size: 3em;
 text-align: center;
 margin-top: 3em;
 margin-bottom: .5em;
 clear: both;
}

p.author {
 font-family: Akashi;
      font-size: 2em;
 text-align: center;
 margin-top: 2em;
 margin-bottom: .5em;
 clear: both;
}

h1, h2, h3 {
 font-family: Yataghan;
 text-align: center;
 margin-top: 3em;
 margin-bottom: .5em;
 clear: both;
}

blockquote {
 text-align: left;
 text-indent: 0;
 margin-bottom: .5em;
 margin-left: .5in;
 margin-right: .5in;
}
```

Note that each structural element has attributes defined for it, including some with custom fonts. I get my fonts from https://www.fontsquirrel.com/ but there are many other sites offering free fonts which are only a Google search away. Custom fonts are a nice way to dress up your e-book, and they will be visible in the preview for your e-book on the Amazon.com website as well. (As of this writing, custom fonts don't seem to appear in the preview for other Amazon sites, but that could change).

If you decide that you don't want to use a custom font for your e-book you can remove the font-family entry in the style sheet above and leave everything else as is.

Other style attributes always get shown. The attributes for P are useful in any book. The ones shown display text with a "ragged right" margin (default is a straight margin on both sides), eliminates indenting of the first line of a paragraph (on by default), and put spacing between paragraphs (none by default).

Notice that when I specify a font size or a top and bottom margin I do it with "em" instead of inches. One "em" is the size of a capital "M" in the default font size, so if the customer chooses to make the text in the book larger or smaller everything will stay in proportion.

If you have a novel divided into Books you'll want to make h1 and h2 have the same font size and spacing. That way they'll look the same in your e-book but the structure of having Chapters within Books will be maintained and will show that way in your Table of Contents.

I use inches for the blockquote indent because I don't want those to change when the customer adjusts the text size.

Again, you can define custom classes for things like Title and Author, as shown below:

```
<body>
 <p class="title">The Bhagavad Gita</p>

 <p class="author">Veda Vyasa</p>
```
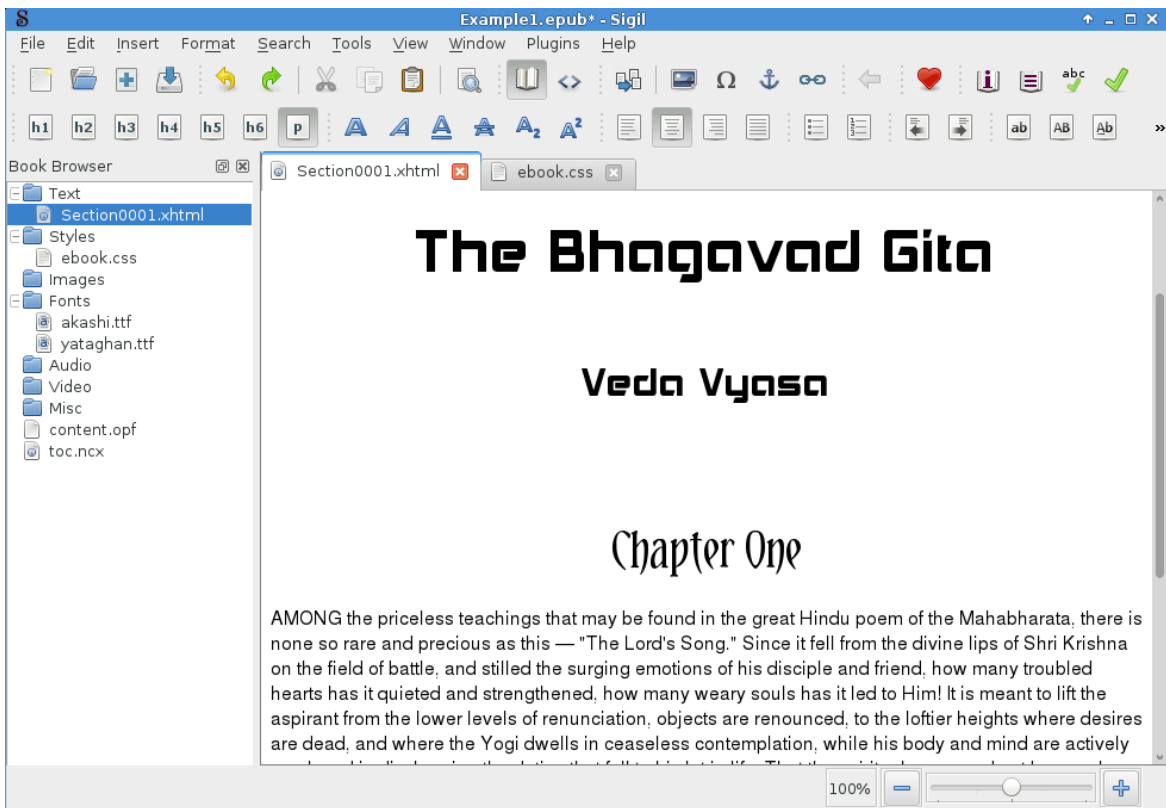
These classes are defined in the example style sheet as p.title and p.author respectively.

To use a style sheet put the text in a file named ebook.css and put it in the Styles folder in Sigil. Then add the following to your HTML page HEAD section like this:

```
<head>
 <title></title>
 <link href="../Styles/ebook.css" rel="stylesheet" type="text/css"/>
</head>
```

The results will look like this in Sigil:

They will look pretty much like that in the Kindle.

In the next chapter we'll explore the **Kindlegen** utility, which converts EPUB files (and other kinds of files) into MOBI books for the Kindle.

7. Kindlegen

Kindlegen is a simple utility used to convert your EPUB files to MOBI format files needed by the Kindle. You run it from a command line like this:

```
$ kindlegen TheLifeAndTimesOfBhaktaJim.epub

************************************************************
 Amazon kindlegen(Linux) V2.9 build 0730-890adc2
 A command line e-book compiler
 Copyright Amazon.com and its Affiliates 2013
************************************************************


Info(prcgen):I1047: Added metadata dc:Title        "The Life And Times
Of Bhakta Jim"
Info(prcgen):I1047: Added metadata dc:Creator      "Bhakta Jim"
Info(prcgen):I1047: Added metadata dc:Publisher    "Bhakta Jim's Books"
Info(prcgen):I1047: Added metadata dc:Rights       "All Rights Reserved"
Info(prcgen):I1002: Parsing files  0000033
Info(prcgen):I1016: Building enhanced PRC file
Info(prcgen):I1006: Resolving hyperlinks
Info(prcgen):I1007: Resolving mediaidlinks
Info(prcgen):I1011: Writing mediaidlinks
Info(prcgen):I1009: Resolving guide items
Info(prcgen):I1008: Resolving start reading location
Info(prcgen):I1049: Building table of content     URL: /tmp/mobi-
VnJhXW/OEBPS/toc.ncx
Info(prcgen):I1015: Building PRC file
Info(pagemap):I8000: No Page map found in the book
Info(prcgen):I1045: Computing UNICODE ranges used in the book
Info(prcgen):I1046: Found UNICODE range: Basic Latin [20..7E]
Info(prcgen):I1046: Found UNICODE range: General Punctuation - Windows
1252 [2013..2014]
Info(prcgen):I1046: Found UNICODE range: Latin-1 Supplement [A0..FF]
Info(prcgen):I1017: Building PRC file, record count:   0000143
Info(prcgen):I1039: Final stats - text compressed to (in % of original
size):  53.76%
Info(prcgen):I1040: The document identifier is: "The_Life_And-
_Of_Bhakta_Jim"
Info(prcgen):I1041: The file format version is V6
```

```
Info(prcgen):I1031: Saving PRC file
Info(prcgen):I1032: PRC built successfully
Info(prcgen):I1017: Building PRC file, record count:   0000142
Info(prcgen):I1039: Final stats - text compressed to (in % of original
size):  55.12%
Info(prcgen):I1041: The file format version is V8
Info(prcgen):I15000:  Approximate Standard Mobi Deliverable file size :
0001318KB
Info(prcgen):I15001:  Approximate KF8 Deliverable file size :
0001328KB
Info(prcgen):I1036: Mobi file built successfully
```

The line in **bold** shows what you enter to run the command, and the other lines show the output from running the command. I used the Linux command line for this example, but I could have done the same thing from a command prompt in Windows or Mac OS.

As you can see, it does some validation on your EPUB to make sure the needed metadata is entered and that all links in the EPUB have a valid target, then it creates the .mobi file. If you see the "built successfully" message at the end you have a file you can load onto your Kindle and read and it will look and work exactly like the one your customer sees. In this way you can be sure that your e-book is well formatted before sending it to Amazon for publication.

If that was all this utility did it would be worth having, but there's more. It can also take your Word or Libre Office document, saved as HTML, and turn it into a readable Kindle e-book.

When I say "readable" I mean that it meets the minimum requirements for being used on the Kindle. You certainly wouldn't want to offer it for sale (although Amazon will let you do it) but it is a handy way to turn a work in progress into something you can take with you and proofread, or share with your beta readers.

In the next chapter we will consider how to make attractive cover images.

8. Cover Images

If you're going to spend money on a professional then the best place to do it might be the cover image. I have done all my own cover images, because the kind of books I've been writing don't need fancy covers. I'd suggest that before deciding to do the cover image yourself you look at books in your own collection in the same genre as what you're trying to sell and see what kind of covers they have. If you're writing a how-to book you can get by with a simpler cover than you would if you're writing a bodice-ripper. Thoughtful science fiction can get by with something simpler than you'd need for high fantasy or space opera.

If you use art on your cover, bad art is worse than no art. I use public domain art, which means art salvaged from old books (pre 1923) and photos of art pieces created before 1923. I use The GIMP to dress up the art by cropping, resizing, and colorizing. You'll see examples in this chapter, starting with very simple covers I did early on and progressing to the fancier ones I did later.

The first cover image I did for a book was this one:

Make Your Own Sugar Activities!
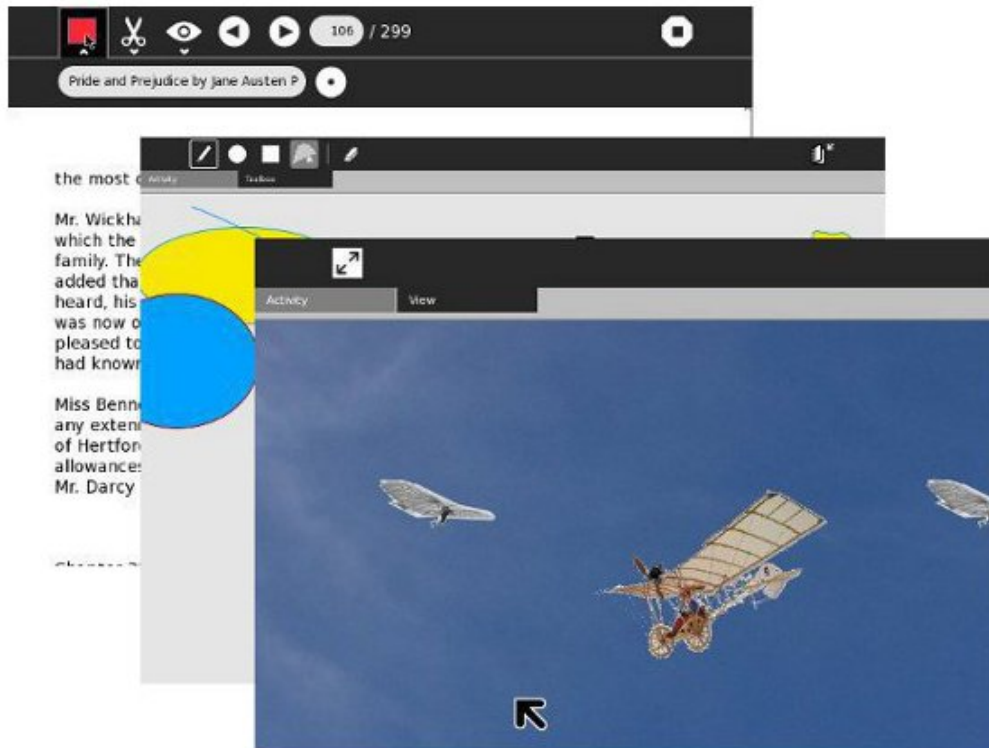
by James Simmons

This was for a how-to book for the *One Laptop Per Child* project. While I sold the book on Amazon, I also gave it away on archive.org. I never expected to make any money from the book, and the simple cover image got the job done. This book has been read more than anything else I've written, so the lackluster cover didn't hurt anything.

After writing this book I got interested in *Project Gutenberg* and transcribed several books that had fallen into the public domain. The first of these was a book from my own collection, a novel by Pierre Louys with lots of interior illustrations, mostly of unclad women. I adapted one of the more restrained interior illustrations to make this cover image:

Ancient Manners

A Novel By Pierre Louÿs

I used a special GIMP filter to give the illustration a fuzzy edge. I was still using the fonts that came with my word processor at this point.

A later Project Gutenberg project got this cover:

VIDYĀPATI: BANGĪYA PADĀBALI

SONGS OF THE LOVE OF RĀDHĀ AND KRISHNA
TRANSLATED INTO ENGLISH
BY ANANDA COOMARASWAMY
AND ARUN SEN

VIDYĀPATI THĀKUR

For this one I found an Indian miniature painting using Google image search. The painting was done long before 1923 so it was legal to use.

Then I wrote a memoir of my wasted youth in the Hare Krishna movement, which got this cover:

The Life And Times Of Bhakta Jim

As Told By Himself, With Elaborate Purports

This was my first time publishing with Create Space, and because the e-book would have the same cover as the printed book I needed a much higher resolution image than I would have needed for just an e-book cover. The photo was one that my brother took of me for a photography class, perhaps a year before the events in the book took place. I had no pictures of myself in the Hare Krishna movement. Taking photos in the 1970's was expensive.

In addition to the higher resolution photo, I used a Display font for the first time. I had learned about these from an article on the Create Space website. Display fonts are meant to be displayed large, unlike the fonts that ship with your word processor. The font I chose, **Chunk Five**, doesn't call attention to itself, but it makes the cover image look more like something you'd see on a regular book in a bookstore.

You don't need a great cover for your book, but you can't afford one that looks amateurish. There are some best selling books with very simple covers, but they all have carefully chosen fonts. Using **Times New Roman** or **Arial** is the mark of the amateur. You're making a book cover, not a Power Point presentation! Compare my earlier cover images with the more recent ones to see the difference a good Display font can make.

This cover was a turning point for me. Believe it or not, I read a blog post where someone said he bought my book because he liked this cover.

I got some really nice reviews for that book, which encouraged me to write a novel, the cover of which looks like this:

Shree Krishna
And
The Singularity
A Novel

Again I used a public domain image found using Google Search, but this time I needed one with really high resolution for Create Space, which likes 300 DPI or better images for covers and interior illustrations. I used two different free fonts for the cover: **Akashi** and **Yataghan**. I also put a drop shadow on the text using The GIMP. This gives a three dimensional effect to the lettering and makes the title look a bit more professional.

There are many GIMP effects you can use for your cover. There are even **Alpha To Logo** options in the **Filter** menu that can do all kinds of interesting things to your title, like making it look chrome plated or like burning hot metal. Most of these would be a bit much for a book cover but you should check them out anyway.

The text on the cover went through several iterations. The first one said "A Science Fiction Novel By Bhakta Jim" until I read an article saying that the word "By" never appears on covers or title pages of professionally published books, and noting that Neal Stephenson's books just say "A Novel", not "A Science Fiction Novel".

I had a lot of fun preparing my books for Create Space and that led me to create a twelve volume edition of the great Indian epic *The Mahabharata*. This is perhaps the longest work of fiction ever written (although John Galt's radio speech in *Atlas Shrugged* seems longer) and every word of it was already transcribed by volunteers for Project Gutenberg. As an ebook this is challenging to read. There are thousands of subtitles and archaic English words like using "hath" for "has", "seemeth" for "seems", etc. I thought it would work better as a printed book, and for cover and interior art I found a Bengali translation of the book that had hundreds of illustrations at the website archive.org.

Having the illustrations clinched the deal. I decided that I would use Create Space to publish a twelve volume set of books, with illustrations, putting the footnotes at the bottoms of their pages (which you cannot do with an e-book) and modernizing the language.

I didn't make e-book versions of these, as free e-books already existed and there was little I could do to improve them. For that reason I never made e-book cover images for them, but the front covers I made for the printed books demonstrate how you can use public domain art from old books plus free fonts to create something good.

This set of books outsells everything else I publish, and since the only thing it has to offer that you cannot already get for free is good formatting I must conclude that I am a competent book formatter.

The Mahabharata

I. The Book Of The Beginning

The cover of the first volume uses a color interior illustration from the Bengali translation. The illustration showed many signs of age which I was able to clean up and make new looking using filters in The GIMP. (I will explain how to do that in a later chapter).

Note that all of these images have something in common: a black border, added using a GIMP filter. If you use a white background for your book cover you'll want to add a black border to the image so it looks good when displayed on the Amazon website. I always do that with my e-book covers. Unfortunately, Create Space does not give you a way to do that with your printed books. It might be a good idea to avoid white backgrounds for book covers for that very reason.

I'd like to conclude with some cover designs for my second novel, still being written. There is something to be said for doing a book cover while you're still writing the book. Editors of science fiction magazines would sometimes buy cover art and then commission a story to go with it. F. Scott Fitzgerald liked the cover art for *The Great Gatsby* so much that he rewrote part of the book to go along with the image of a woman's eyes on the cover. (That business about the The eyes of Doctor T. J. Eckleburg, in case you're wondering).

I think that books in a series should have similar covers, so I wanted to make the cover illustration the same size and shape as it was on the first book. I had a lot of high resolution images I could use from that Bengali *Mahabharata*, but most of them were black and white and vertical rather than horizontal. However, where there is the GIMP there is a way:

A Great Noise In The Welkins

A Novel

I was able to crop the top and bottom of this illustration and resize it horizontally (but not vertically). That makes the figures in the drawing chubbier than they were, but the effect isn't that bad. I also used the "colorize" filter to give the black and white illustration a blue tint.

Here is another possibility:

A Great Noise In The Welkins

A Novel

I wanted a blueprint for an old plane and was able to find a PDF of a very old model airplane plan. I flipped it so the plane faced right instead of left, removed sections of the plans that suggested a model plane rather than a real one, and flipped the colors to make it white on blue rather than black on white.

This is one that still needs work:

I used the "Layer" feature of GIMP to put a second illustration with a transparent background on top of the first illustration. The second illustration was part of a larger illustration and was tinted blue.

I hope that all this shows that you can make a pretty passable cover illustration using public domain art, free fonts, and a free program called The GIMP. The GIMP is well documented and worth taking the time to learn.

In the next chapter I'll talk about making and selling printed books using Create Space.

9. A Book Interior Template

As readers we don't pay much attention to the format of the pages of printed books, but as publishers we need to start doing that. Before you prepare the PDF to submit to Create Space, have a look at the books in you collection, especially those books that are like what you're going to sell. If it's a science fiction novel, just look at those. It it's a how-to book, look at ones on similar subjects. For example, if you're going to do a how-to book on computer programming, don't look at books on getting the most from your new gas grill.

I'm going to recommend that you use Libre Office to format your book, even if you use something else to write it. MS Office lets you style paragraphs, which is sufficient for e-books, but Libre Office lets you also style pages, which makes formatting book interiors much easier. Libre Office is free to download and use, and I recommend that you do that and try out the things I'll describe in this installment. That way, even if you decide to use something else to format your interior pages you'll have a better idea of what you're doing and why. Libre Office is available for Windows, Macintosh, and Linux. It has excellent documentation on the web, so you can easily learn to use all of its features.

When you have that installed you can download and open templates from **archive.org**:

https://archive.org/details/BhaktaJimBookTemplate7.44X9.69
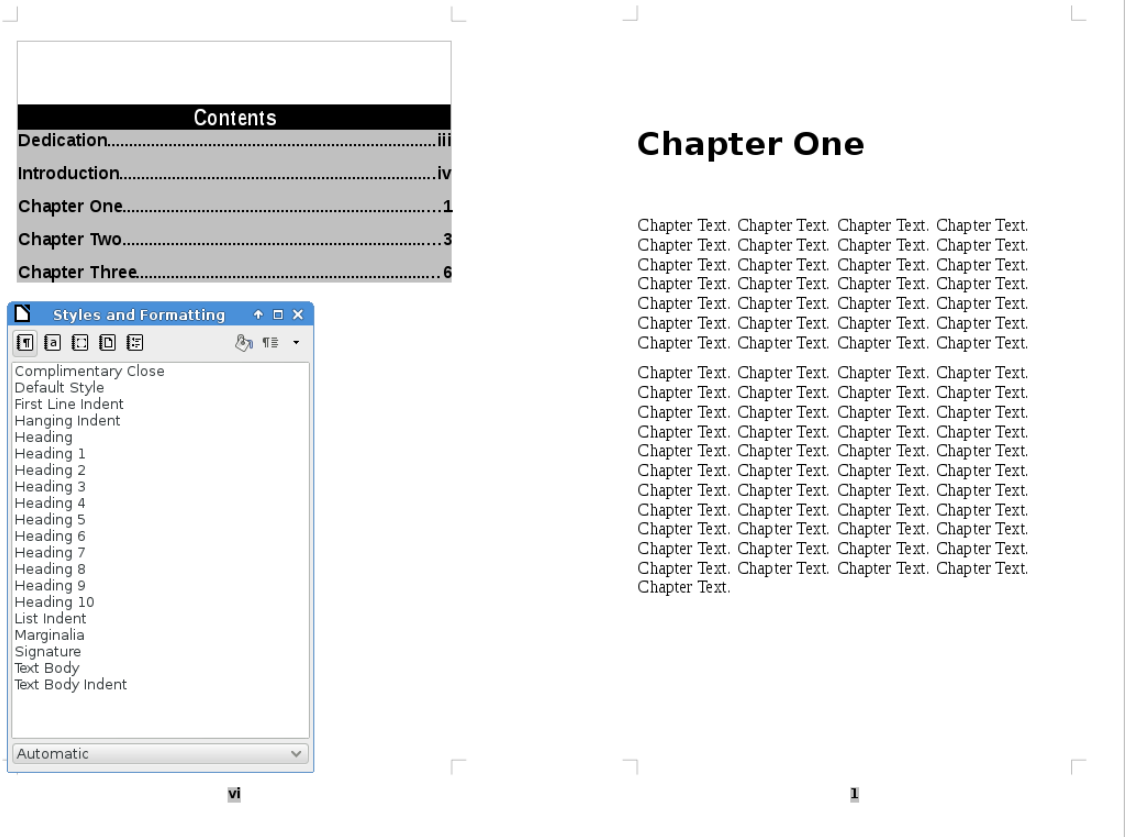
Select **Show All Files** and pick the one that matches the size of the book you want to create.

I should point out that Create Space has its own collection of templates for MS Word. You'll find it on the part of the site where they tell you how to format a PDF for interior pages. There are two templates for each size of book that they publish. One just sets the page size and margins for you, and the other has sample text in it for the different parts of a book. If you use MS Word you could check them out.

There is much room for improvement with the Create Space supplied templates. Whoever created them didn't realize that MS Office will automatically generate a nice Table of Contents for you as long as you use Heading 1, Heading 2, etc. as styles for your chapter headings and subheadings. Thus he defined styles for chapter headings that don't work with this feature, and he put in a table of contents that is literally a table you must fill in by hand.

If you're willing to use Libre Office instead you'll find that my template is much better, not only because it uses the right kind of headings but also because Libre Office has **Page** styles, not just paragraph styles.

When you open my template in Libre Office you'll see this:

Contents

Styles and Formatting

Complimentary Close
Default Style
First Line Indent
Hanging Indent
Heading
Heading 1
Heading 2
Heading 3
Heading 4
Heading 5
Heading 6
Heading 7
Heading 8
Heading 9
Heading 10
List Indent
Marginalia
Signature
Text Body
Text Body Indent

Automatic

Chapter One

Chapter Text. Chapter Text.

Chapter Text. Chapter Text.
Chapter Text.

vi

1

My template has the following page styles:

1. **First Page**. This is for the title page of the book, the verso (copyright page on the other side of the title page) and other front matter that would not have numbered pages. If you have glowing reviews of your book given by famous people you can also put them in front of the title page using this page style.

2. **Front Matter First Page** which have a title (like Introduction, Preface, Acknowledgments, etc.) and a page number in lower case roman numerals, but no page heading.

3. **Front Matter Pages**, which are the pages that come after the Front Matter First Pages and have a page heading plus a page footer with the page number in lower case roman numerals.

4. **Chapter First Pages**, which are much like the Front Matter First Pages except that they are numbered with Arabic numbers. These are the first pages of your book's chapters.

5. **Default Pages**, which are the rest of the pages of the book. They have page headings and footers. The footers have page numbers in Arabic numerals.

Before you use the template you may want to customize it. Here are things you might change:
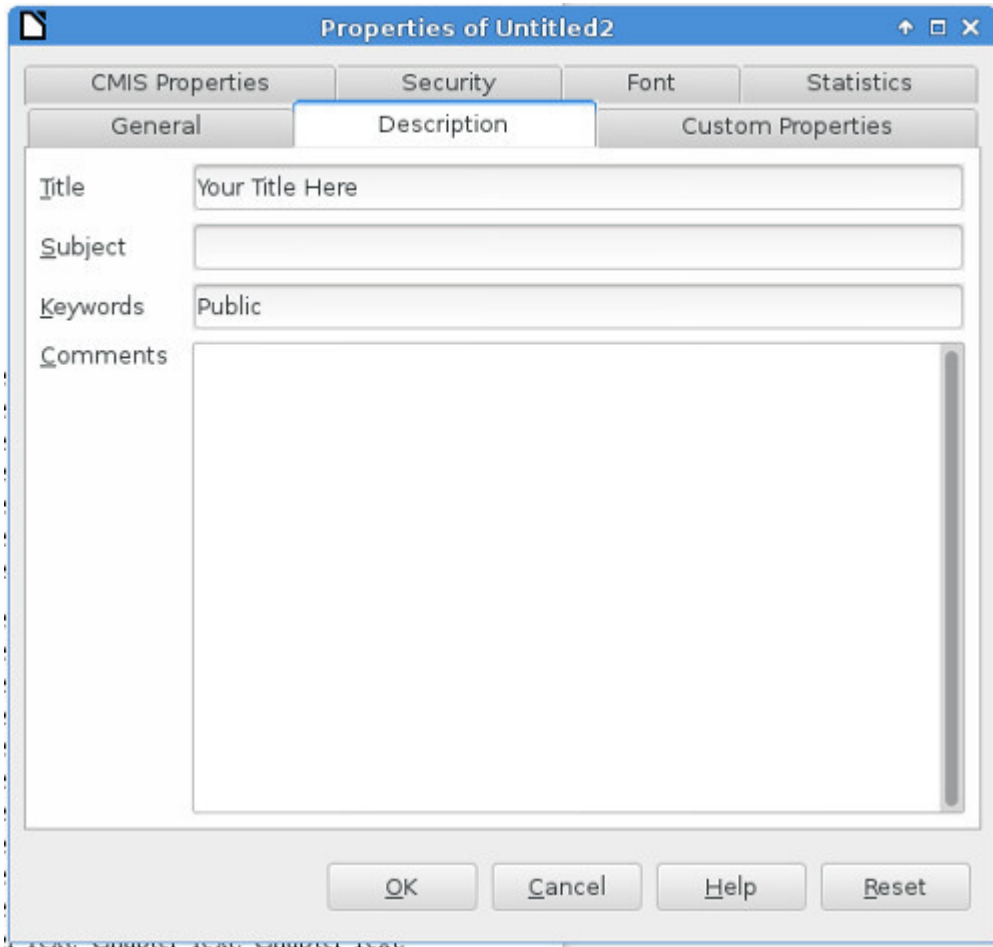
1. Page size. This template was created for a friend, who needed an 8.5 x 5.5 inch size. Most of my own books are 6 x 9. That is a size that Create Space recommends for novels, etc. Be aware that Create Space books are priced by page count, and smaller pages are no cheaper than larger ones. The best thing is to use a size that is common for the kind of book you're selling.

   You can change the page size in the **Page Style**. You need to change the size of every page style you plan to use in your document. There is no way to change it one place and have all page styles affected.

2. Page headers and footers. The way my style sheet does these is to put the title of the book on the left pages and the current chapter title on the right pages. Chapter titles are automatically gotten from your Heading 1 chapter titles.

   This is a good way to do things if you name your chapters, but if you just number them then you might put author name on the left pages and book title on the right pages.

In my template the title is taken from the **Properties** dialog (**File->Properties...** in the menu):

Properties of Untitled2

CMIS Properties	Security	Font	Statistics

General	Description	Custom Properties

Title: Your Title Here

Subject:

Keywords: Public

Comments:

OK   Cancel   Help   Reset

You might also consider whether you want the headings left justified on left pages and right justified on right pages.

3. Text alignment. Really only two options here: **Left** and **Justified**. Most published books use Justified, which spaces out the words so you have a neat left column of text and a neat right column. I favor Left because it makes for easier reading. In Left only the left column is neat, and the right is ragged (in other words, the lines are allowed to be different lengths).

4. Fonts. Update the **Text Body** style to use your choice of fonts. There is no shame in using 12 point Times New Roman (AKA Liberation Serif in Linux) but if you want to impress people you'll pick something else. Serif fonts are supposed to be easier to read.

   You can be more adventurous when choosing your chapter heading fonts.

5. Paragraph indent. Two choices: indent the first line and don't space between paragraphs or don't indent the first line and do put space between paragraphs. Publishers seem to favor a very small indent and no spacing. It saves paper, if nothing else. I favor no indent and a small amount of space between paragraphs and that is what the style sheet is set up to do.

   Something you'll see in many published books is the **drop cap**. This is where the first letter of the first paragraph in every chapter is much larger and perhaps in a different font than the rest of the text. This is something that you should apply to each first paragraph rather than to the Text Body style.

   Personally, I don't like drop caps and don't use them.

When you're happy with your template save it and close it, then do **New->Templates** from the menu. You'll see a dialog like this:
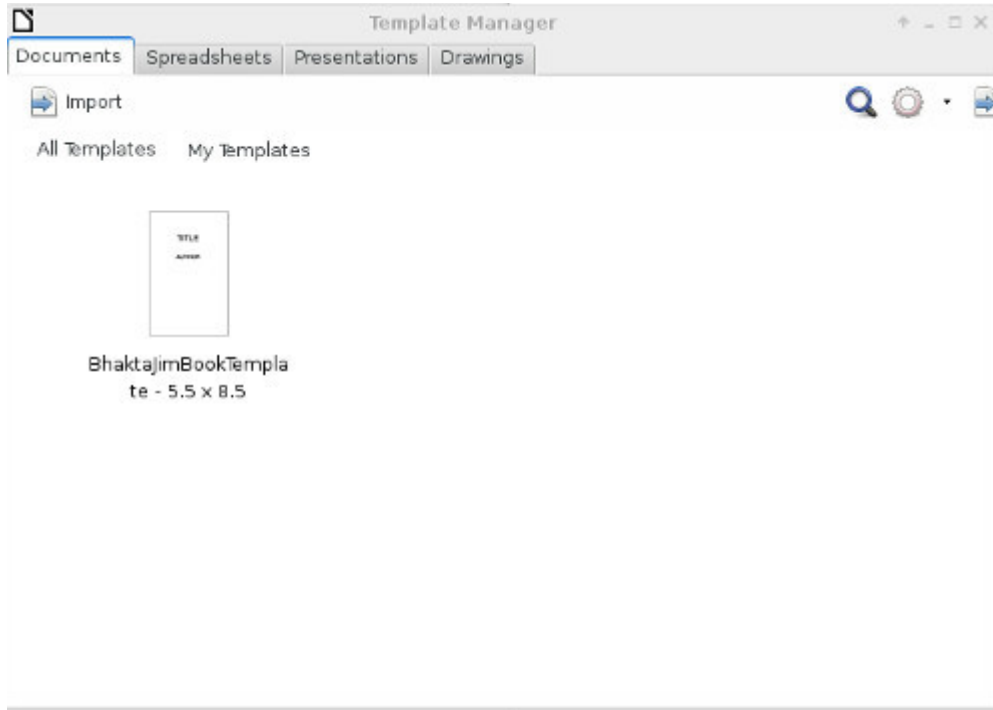
Use the **Import** button to copy the template into this window. To create a new document using this template, select the template and click on the Open button that appears above it when you select it. You'll get a new document with my sample text in it. Replace my sample text with your own content.

If you use Copy and Paste to move your content from some other word processor, be sure to use the **Paste Special** menu option and choose **Unformatted text** as the option. This will copy your text into Body Text without copying unwanted formatting (fonts, font size, etc) with it. You'll have to manually replace italicized and bolded text afterwards, but your text will be in the Text Body style and you can change the appearance of that style in one place and affect all the text in the document, which would not be possible if you had copied formatting as well as text from the old document.

Experiment with your new document until you're happy with it, then use **File->Export as PDF** to create a PDF ready to submit to Create Space.

10.   How To Make A Book Cover That Isn't Lousy

If you're going to publish on Create Space you'll need a better cover than you would if you just publish e-books. For that reason, I'm going to revisit the topic of cover design and go into more detail.

For Create Space books you need to make your own book cover or pay someone to do it. You can hire a professional to design your book cover, and you can even use a website like **99 Designs** to get many people to design book covers for you and only pay for the one you actually use. Either way you're talking serious money. If you think you can sell a lot of books that professional cover design could be a good investment. If not, you should probably see how well you could do designing your own cover.

In my own case I have another reason to do my own book covers. I enjoy it! Every part of the process, from finding public domain art and selecting fonts to doing the actual layout, can be fun. I don't farm out the fun jobs, and maybe you'll feel the same way if you give cover design a try.

Before I show you how to do your own, let's look at some other people's book covers.

There are artists like Rowena Morrill, Boris Vallejo, and Frank Frazetta that have done amazing illustrations for otherwise forgettable books. These artists probably never read the books they illustrated. Frazetta's covers for *The Moon Maid* and *The Moon Men* by Edgar Rice Burroughs in particular had little to do with what happens in those books, though they no doubt did wonders for sales. Do a Google image search to see examples of these artist's work.

I sometimes think that covers like these are the real product, and the book is an afterthought.

Many novels uses photos instead of art for their covers, which are likely to be stock photos. I've seen one photo of a teenage girl looking out a window that was used (with small changes) for three different YA novels:

- *You Have Seven Messages* by Stewart Lewis

- *The Miracle Girls* by Anne Dayton and May Vanderbilt

- *These Girls* by Sarah Pekkanen

All three have different publishers, so the photo was clearly not taken specifically for those books, and I'd be very surprised if a teenage girl looks out of a window in any of the stories.

Now let's look at another kind of cover. Try to search for these on Amazon:

- *Reamde* by Neal Stephenson

- *Franny and Zooey* by J.D. Salinger

I like these covers. They definitely look professional, but you could make a cover like these pretty easily with The GIMP and some free fonts. The covers put the reader on notice that the publisher thinks the author's reputation alone is enough to sell the book.

As an unknown author you won't be able to get away with a cover like those. So let's compromise: we'll do a cover with a nice font and some free art. Like this:

The Mahabharata

VI. The Book Of Bhishma

The Mahabharata Book VI.   Kisari Mohan Ganguli

Bhakta Jim's Books

Barcode Area

We will add the barcode for you.

Made with Cover Creator

Now that doesn't suck! Any author would be proud to have a book cover like that, and I'm going to tell you how to make one.

11. Getting High Quality Art From Archive.org

I mentioned in the second chapter that there is some really good free art in the page images at archive.org. However, the art you see when you flip through the pages online is NOT high enough resolution to use in a book. The good news is that much higher resolution images are available.

Check this URL:

http://archive.org/details/mahabharata01ramauoft

Notice that on the left side of the page is an entry that looks like this:

```
All Files: HTTPS Torrent (2/0)
```

Click on **HTTPS** and you'll see this:

```
Index of /29/items/mahabharata01ramauoft/

../
mahabharata01ramauoft.djvu 22-Apr-2009 08:41 93959287
mahabharata01ramauoft.gif 22-Apr-2009 05:57 306063
mahabharata01ramauoft.pdf 22-Apr-2009 12:16 126285010
mahabharata01ramauoft_abbyy.gz 22-Apr-2009 06:12 133
mahabharata01ramauoft_archive.torrent 03-Aug-2012 04:37 25433
mahabharata01ramauoft_bw.pdf 22-Apr-2009 18:12 111039135
mahabharata01ramauoft_dc.xml 08-Apr-2009 15:29 407
mahabharata01ramauoft_djvu.xml 22-Apr-2009 06:12 89
mahabharata01ramauoft_files.xml 03-Aug-2012 04:37 5475
mahabharata01ramauoft_flippy.zip 22-Apr-2009 06:12 62902234
mahabharata01ramauoft_jp2.zip 22-Apr-2009 05:54 701398920
mahabharata01ramauoft_marc.xml 08-Apr-2009 15:29 3247
mahabharata01ramauoft_meta.mrc 08-Apr-2009 15:29 830
mahabharata01ramauoft_meta.xml 24-Nov-2010 21:29 1650
mahabharata01ramauoft_metasource.xml 08-Apr-2009 15:29 374
mahabharata01ramauoft_raw_jp2.zip 22-Apr-2009 05:52 795061048
```

```
scandata.zip
```

Of all of these, this is the one you want:

```
mahabharata01ramauoft_jp2.zip
```

This is about 70 megabytes of high resolution images in a zip file. Download it and unzip it.

You'll end up with several hundred page images in jp2 format.

JP2? What the heck is that? I hear you ask. Well, it is like JPEG but more highly compressed. It is also pretty useless, but the good news is you can convert them to JPGs.

How? By using a free software program called Image Magick:

http://www.imagemagick.org/script/index.php

Versions for Windows, Mac and Linux are available. Download the one you need and install it. It is my opinion that a serious author should use Linux, but this opinion is not widely held.

Image Magick does its magick from the command line. If you have three hundred odd page images to convert from JP2 to JPEG you can set the command going, do something else while it chugs away, and when you return they are all converted.

Linux has an excellent command line. Windows is tolerable. Mac is supposed to be pretty good, but don't ask me how to find it.

The command you want to use, from the directory where the images are, is this:

```
mogrify -format jpg -quality 90% -verbose *.jp2
```

When it is done running you can delete all the JP2 files. Now you have a bunch of high resolution JPEG page images featuring beautiful, public domain, art. Or they *would* feature that if the pages weren't all yellow and crooked. There must be a way to use the computer to fix that, right?

12.   Cleaning Up Art From Old Books

If you've followed the steps so far you have some photos of nice art on yellowing pages. Fixing this is like touching up old photographs, and you need a tool for that job.

The GIMP is that tool. If you didn't download and install it after reading the second chapter, go do that now.

GIMP has a variety of filters available. One of the most useful is the **White Balance** filter. This automatically identifies the parts of your image that should be white, then adjusts the color so they are white. It adjusts every color in the picture the same way and the same amount. The effect of this filter is magic. It's like a fountain of youth for your old photos (color photos fade over time) and it works equally well on page images.

The **White Balance Filter** is found in the **Colors** menu under **Auto**.

Archive.org has special equipment for photographing book pages that generally does a good job of keeping the pages aligned properly, but sometimes you get a crooked page. GIMP can help here too. In the **Layer** menu under the **Transform** menu is an option **Arbitrary Rotation...** This lets you rotate your image a few degrees in either direction until the page image is vertically aligned. You can use the edge of the rotation dialog as a guide to know when the image is vertical.

This is only the beginning of what GIMP can do. Not only can you make an old photo look new, you can make a new photo look old. Look under **Filters**, in the various sub menus, to see all the special effects you can do to your photos. The **Old Photo** filter could be useful for a cover for a western or a private eye novel set in the 30's.

It takes practice to get good with GIMP, but the results are worth it. You can find some good tutorials here:

https://www.gimp.org/tutorials/

13.   The Palm Book Cover Wizard

There are several cover creating wizards available for Create Space. I recommend using only one of them: **The Palm**.
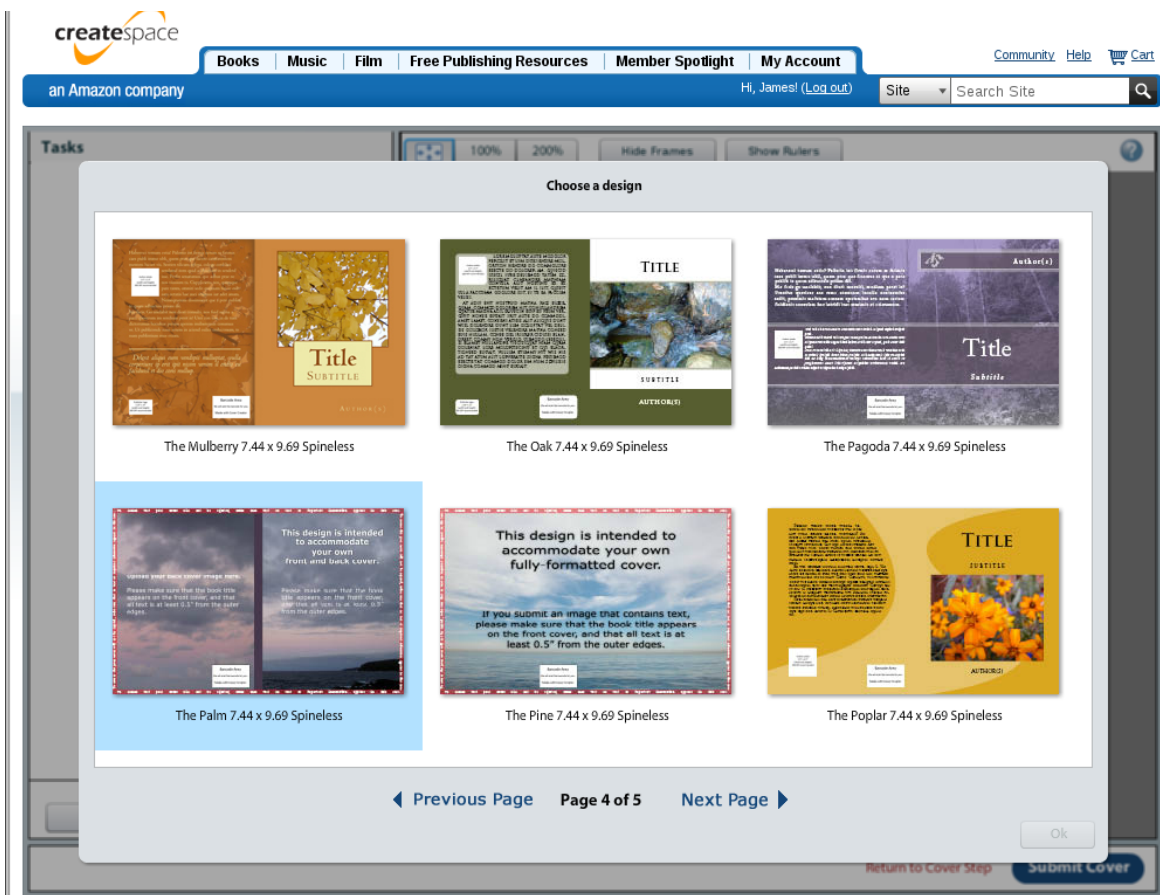
You'll need to go through four out of five pages of possible cover creator wizards to get to it. What it does is allow you to submit a fully formatted front cover, a fully formatted back cover, and choose the colors and text you want to appear on the spine.

The options for the spine are limited. There are four different fonts to choose from, and the font size will depend on how much text is in the title. If you want your spine to be fancier than this you'll need to find another way to make your cover. Before you do, consider that the width of the spine is controlled by the number of pages in the book. If you rewrite your book before submitting it for publication you'll find that letting the wizard deal with the width of the spine will save you work and possibly grief.

If your book is very short (like this one) you'll see "spineless" wizards where you'll be able to choose the color of the spine and that's it. No text will appear on that spine.

If you absolutely must have a wrap-around cover (and some books will require them) then you can't use **The Palm** and you won't want to use any of the other wizards, with the possible exception of **The Pine**, which lets you submit your complete cover as a single image. You could also consider submitting a PDF with a fully formatted cover. I'll show you how to make a wrap-around cover in the next chapter.

For now, I'm going to assume you've chosen to use **The Palm**.

Your cover images must be 300-600 DPI. Most images you'll find on the Internet are 72 DPI, and you may well wonder how to go about creating a 300 DPI image. The GIMP makes it easy, once you know how.

Create a new image using the **File** menu. You'll see a dialog like this:

Create a New Image

Template:

Image Size

Width: 7.440

Height: 9.690 in

4464 × 5814 pixels
600 ppi, RGB color

Advanced Options

X resolution: 600.000

Y resolution: 600.000 pixels/in

Color space: RGB color

Fill with: Background color

Comment: Created with GIMP

Help   Reset   Cancel   OK
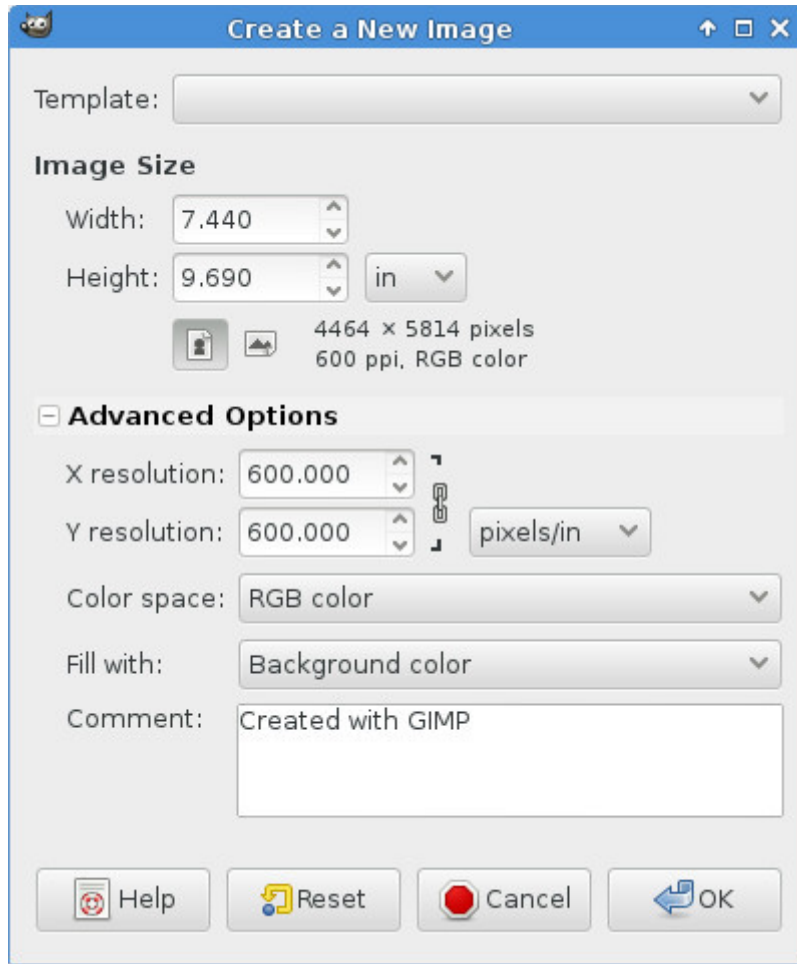
The dialog has image size default to pixels, which is what you'd want for a web image, and it hides the **Advanced Options**. You'll want to change the image size to be measured in inches (or centimeters, if you roll that way) and in the Advanced Options you'll specify 300 DPI up to 600 DPI. This will create an empty image at the proper DPI. Any art you paste into this image will adopt that DPI.

There are two book sizes I use: 6 x 9 inches, and 7.44 x 9.69 inches. The second one is for how-to books. I wrote some books for FLOSS Manuals and that is the size they prefer for their printed books. They call that size Crown Quarto, which may not be accurate. I use 6 x 9 for everything else. That is the size that Create Space recommends for most books. Unfortunately, once an ISBN has been assigned to a book you cannot change the page size, so put some thought into your selection so you can get it right the first time. Again, look at books in your own collection to help you decide, and remember that page count, not page size, determines the cost of the book.

I'm going to publish this book at 7.44" x 9.69". At 300 DPI that works out to 2232 x 2907 pixels. That means art on the cover needs to be be large enough in pixels to fill that size image. It doesn't have to be 300 DPI though, because when you paste the image on top of your blank 300 DPI canvas it will become 300 DPI.

You should set up your canvas to be the size that you want the book to be, but before you can use it as a cover image you'll need to add a half inch to the outer edge of the front and back cover images. In other words, for the front cover you'll need extra space on the top, bottom, and right sides, and for the back cover you'll need extra space on the top, bottom and left sides.
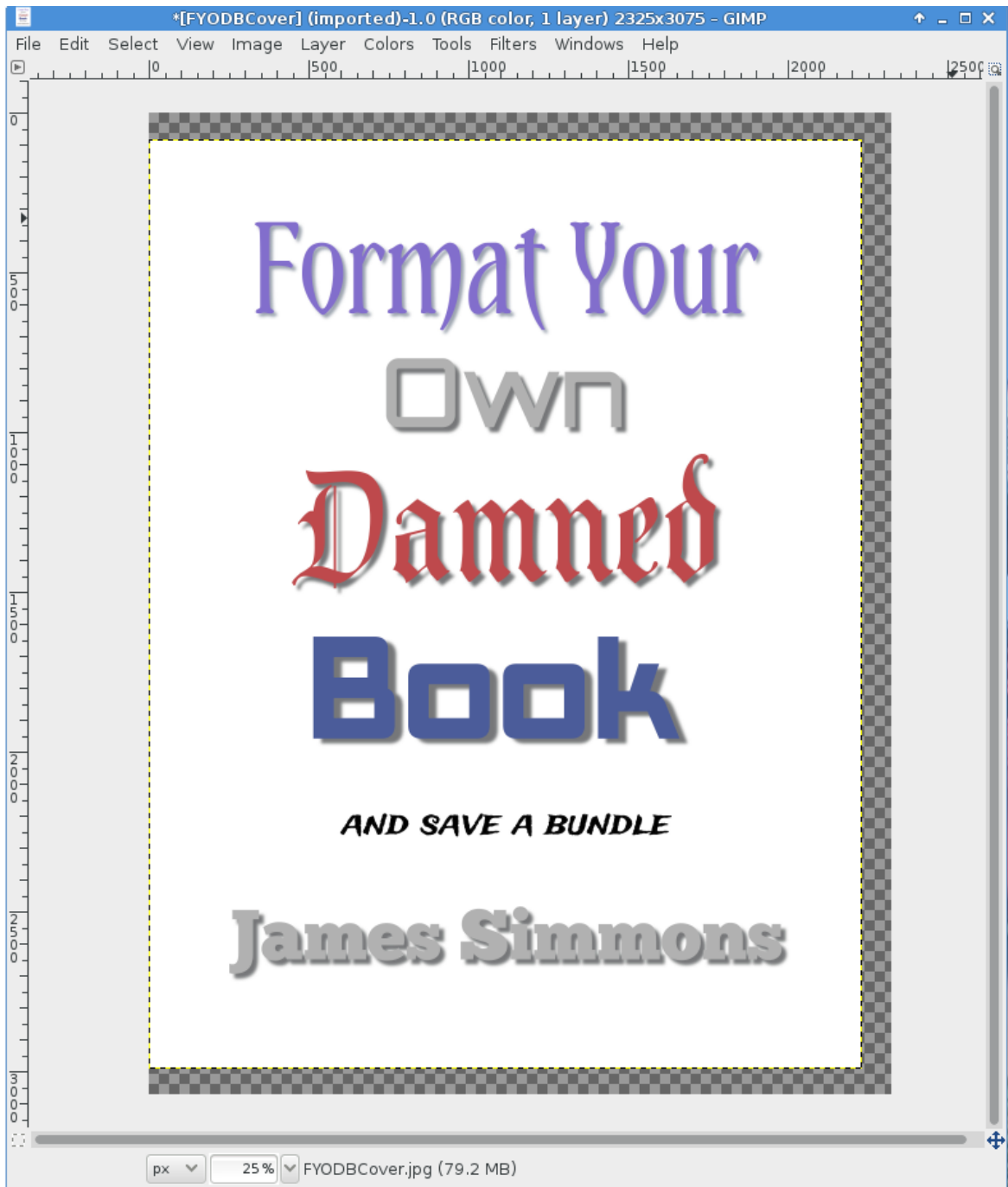
You can easily add this extra space with The GIMP:

Use the **Image->Canvas Size** to make the canvas larger. I'd recommend doing this in three steps:

1. Change the height first, and use the **Center** button to vertically center your existing cover inside the larger canvas.

2. Then change the width and leave your image on the left side of the canvas for front covers and drag it to the right side for back covers.

3. Flatten the image using **Image->Flatten Image**. This will set the extra space in the canvas to the background color.

Now you can add your cover images to **The Palm** wizard:

It would be a good idea to wait until you have interior pages submitted before you run the cover wizard, otherwise the wizard won't let you work on the spine.

14.   Making A Wraparound Book Cover

I have not used a wraparound cover on any of my books yet. The advantage of using the Palm Wizard is that you don't have to completely re-do your cover when you update your book. One of the advantages of self publishing with Create Space is that you can change your interior text even after you publish your book. If you have a wraparound cover you can't do that as easily.
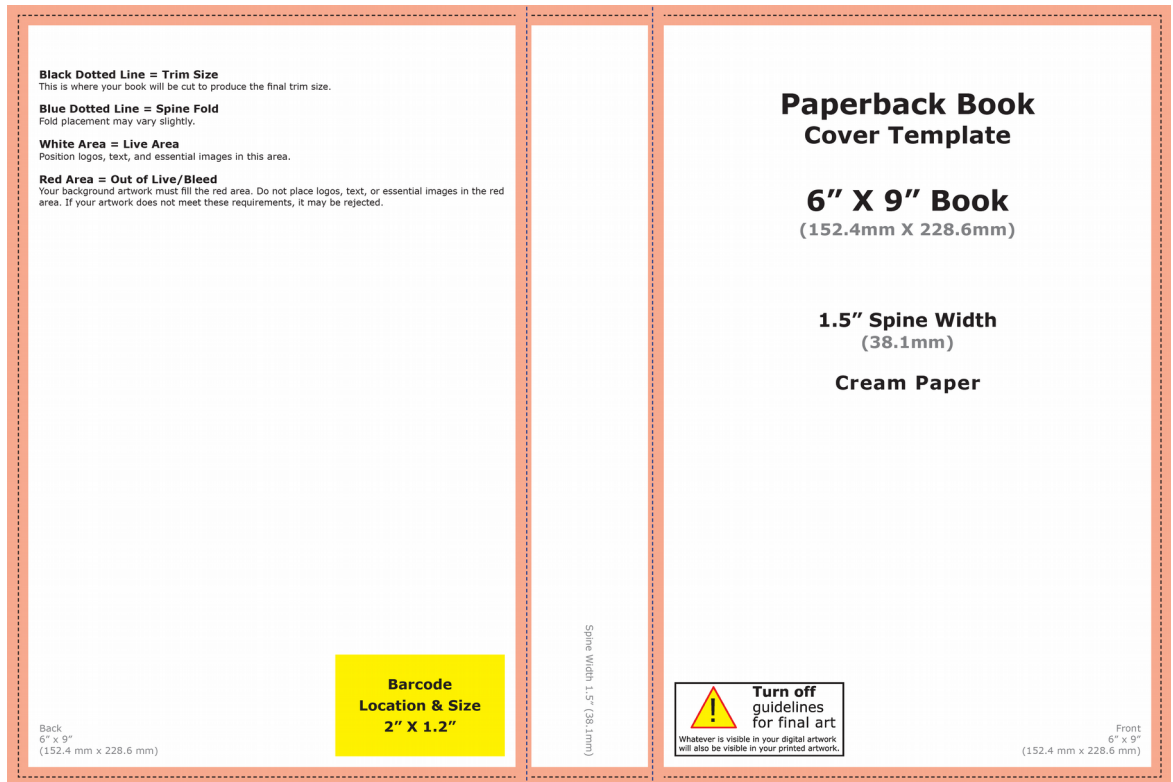
Having said that, it isn't much harder to create a wraparound cover than it is to create front and back covers, and there are ways to reduce the amount of work needed to re-size a wraparound cover, should you need to do that.

The Create Space website has a useful utility that creates a .png file of the size and shape you'll need for your cover. You'll find it in the **Cover** tab within the **Books** tab on the site's home page, or use this URL:

https://www.createspace.com/Products/Book/CoverPDF.jsp

Look for the part of the page that says "Download cover templates" and click on the link. You'll see a form that asks for your page size, paper type, and number of pages and when you fill these in you'll get a PNG file that looks something like this:

Black Dotted Line = Trim Size
This is where your book will be cut to produce the final trim size.

Blue Dotted Line = Spine Fold
Fold placement may vary slightly.

White Area = Live Area
Position logos, text, and essential images in this area.

Red Area = Out of Live/Bleed
Your background artwork must fill the red area. Do not place logos, text, or essential images in the red area. If your artwork does not meet these requirements, it may be rejected.

Paperback Book
Cover Template

6" X 9" Book
(152.4mm X 228.6mm)

1.5" Spine Width
(38.1mm)

Cream Paper

Barcode
Location & Size
2" X 1.2"

Spine Width 1.5" (38.1mm)

Back
6" x 9"
(152.4 mm x 228.6 mm)

! **Turn off**
guidelines
for final art
Whatever is visible in your digital artwork
will also be visible in your printed artwork.

Front
6" x 9"
(152.4 mm x 228.6 mm)

The Create Space website recommends using **Adobe InDesign** or **Adobe Photoshop** to create your cover. We're going to use **The GIMP** instead.

There are dotted lines on this template which show where your text and important artwork have to go. It would be nice to have those lines visible in the drawing area when you do the cover, wouldn't it? That is what **Guides** are for.
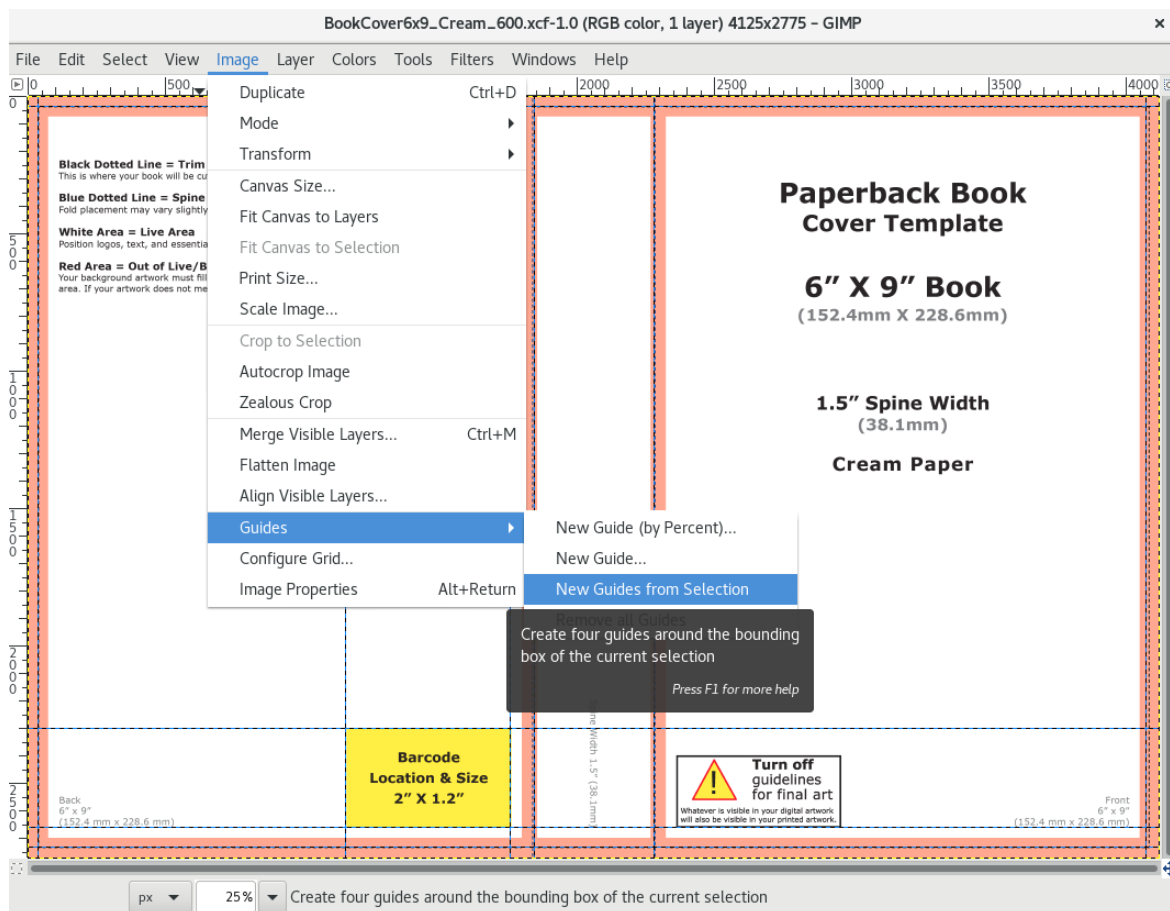
As you can see above, you can select those dotted lines with the **Rectangle Select** tool and create a Guide from that selection. Create one for the front cover, the back cover, the spine, and that barcode. (You're going to have a barcode on your back cover whether you want it or not). The guides should look like the picture above.

Now to put the wraparound art in place. I'm using a photo from the NASA website, which should be OK if I use it in a way that does not imply that NASA endorses my book. By the time I'm done with that photo it will be distorted, which will lose me Neil deGrasse Tyson as a potential reader but should be OK otherwise. The first thing I'll do is resize the picture to fit in the available space, ignoring the aspect ratio. (In other words, I'll be resizing the horizontal and the vertical by different percentages).

Now I'll use Copy and Paste to copy that image on top of the template image, leaving the Guides visible:
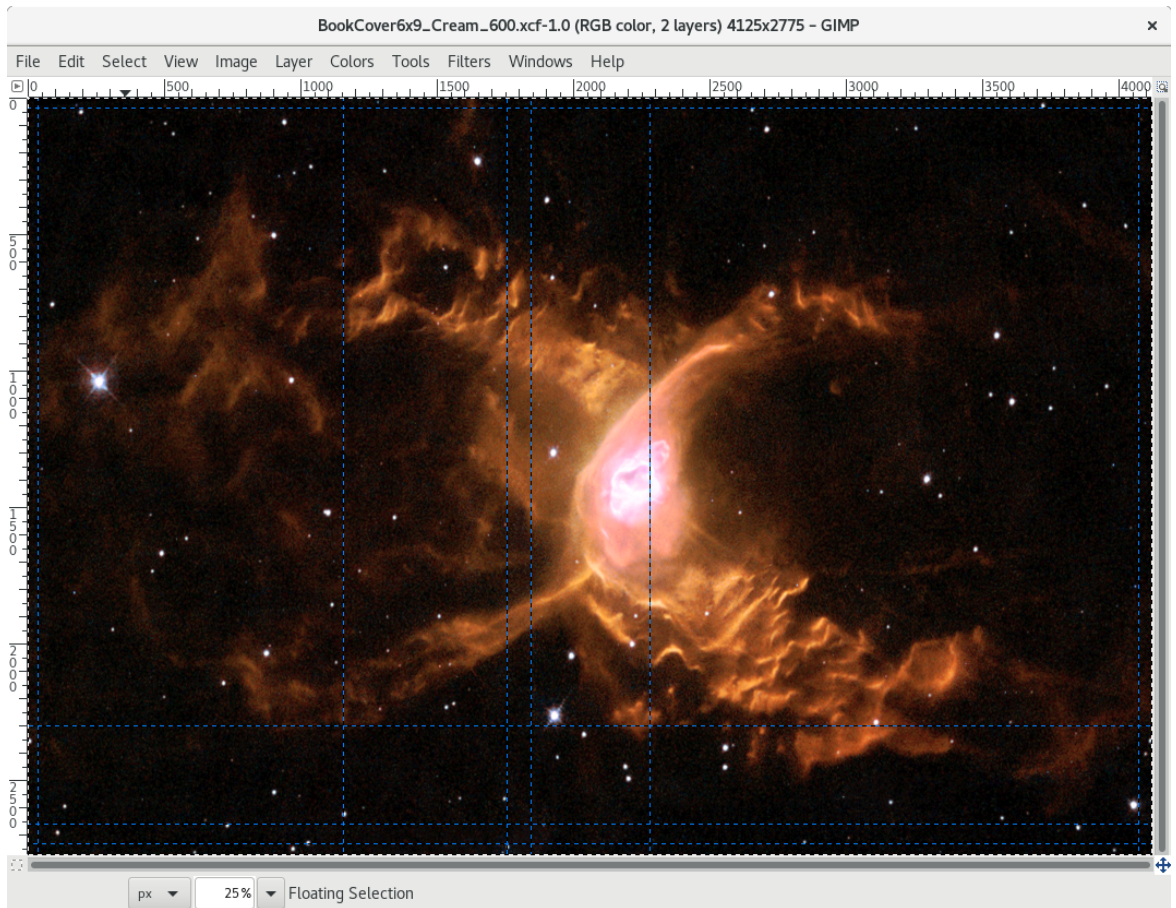
And there they are, ready for me to add my title, author picture, back cover copy, etc. When I'm done I'll make my Guides invisible, flatten the image, and export it as a PDF.

I mentioned that there were things we could do to make resizing this book cover a bit easier. The GIMP works with **Layers**. What this means to you is that you can take all of the elements of this cover and store them as separate images, which can be resized and combined as needed. The elements would include:

1. The art that makes the background of the cover.

2. The title on the front page.

3. The author on the front page.

4. The title on the spine.

5. The author on the spine.

6. The back cover text.

7. The author photo.

Each of these items except the first can be given a transparent background, so that when you overlay it on the artwork the artwork shows through. This transparent background is called an "alpha channel". You can read more about this in the GIMP documentation.

Since this is going to be a science fiction book cover we'll need an appropriate font. I like **Akashi** and **Orbitron**. Akashi is sort of retro futuristic, and Orbitron is more conventional.

There is a science fiction novel *Edison's Conquest Of Mars* that is in the public domain in the United States, so let's pretend that we are going to re-issue that novel using Create Space and need a nice book cover for it.

This will be the finished product:
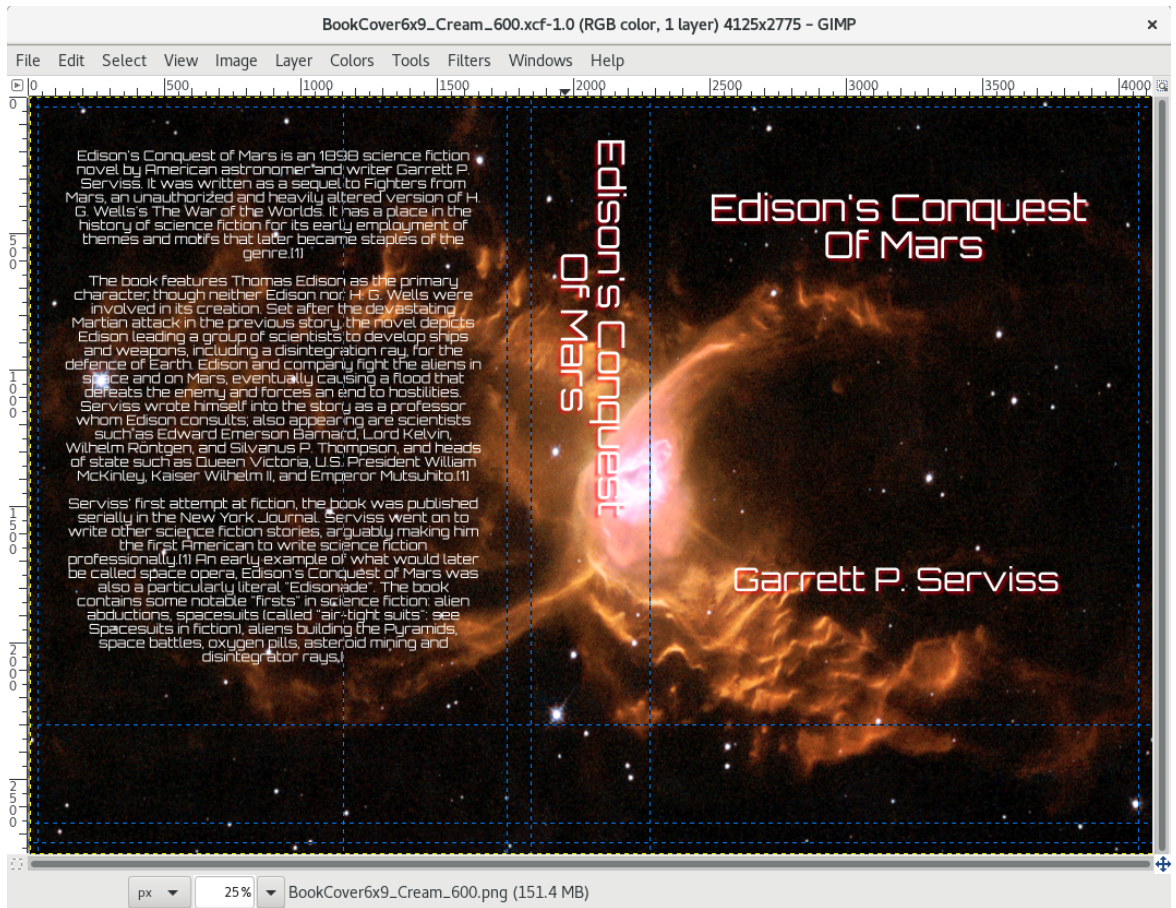
I created images for each element (author, title, spine text) using the following steps:

1. Select the area in the cover where you want to put the element using the Rectangle Select tool.

2. Copy that selected rectangle.

3. Paste it to a New Image. The image will be the size of the area you selected.

4. The image will show that part of the background image that you selected. You don't want that, so use the Layer menu to delete the Layer. The idea is to delete the picture from the image, which will leave behind a transparent background of the correct size.

5. Add text, etc. over this background and save it in the GIMP's own format (NOT png or jpeg). This will preserve the transparency of the background.

6. Now use Copy and Paste to copy the text to the book cover, and use the Move tool to grab the text and move it into position.

The book title image I created looks like this:
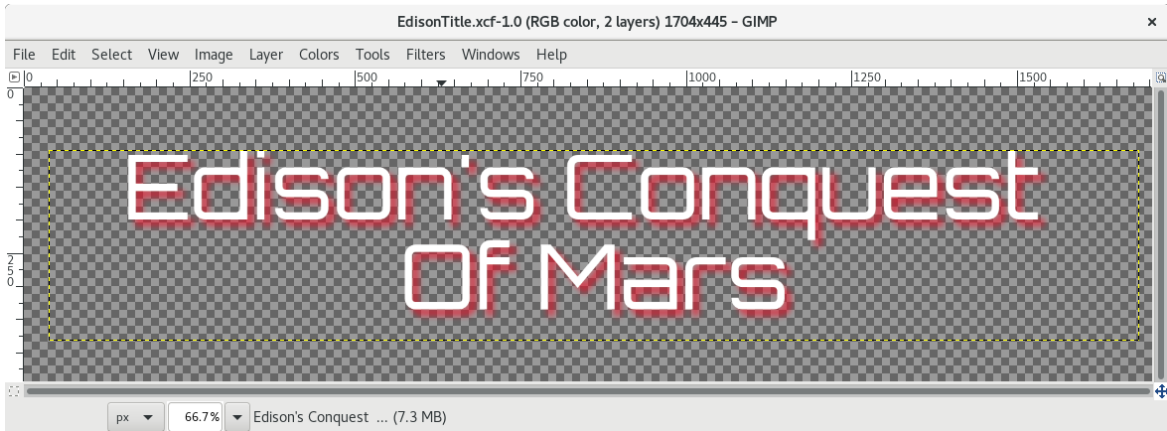
I put in the text using Orbitron Light, added a red Drop Shadow, then Merged the Visible Layers to make something that I can copy and paste.

I made a copy of this and rotated it using the **Image→Transform→Rotate 90 Clockwise** menu to get the title for the spine.

If I need to redo the book cover because the page count changed I'll need to create a new template, select the Guides, resize the background image to be the same size as the template, and paste in that background and the separate text elements I created. This will be much easier than doing the whole thing over again.

15.   A Few Words About Interior Illustrations

One thing Create Space does not do all that well is interior illustrations.

I have already mentioned that color interior illustrations are a waste of money. Unless every page in your book has color, your book will cost four times as much as it would with no color illustrations, and the illustrations won't look that good. Stick with black and white.

Create Space recommends that all illustrations be 300-600 DPI. That is a good recommendation for illustrations that go on the cover. For interior illustrations, it's a bit more complicated than that.

Imagine how your manuscript would look printed on a laser printer or an inkjet printer using no color cartridges. That will give you some idea of what a Create Space interior page will look like.

This is both good and bad. The good part is that if your book is full of screen grabs demonstrating how to use software that has a GUI, the illustrations will look fine even though they are no more than 72 DPI, the normal resolution of screen grabs and web illustrations. Diagrams will probably look OK at 72 DPI. To avoid complaints from the Create Space review process you can change the DPI of your illustration using the **Image->Print Size** menu option in The GIMP:
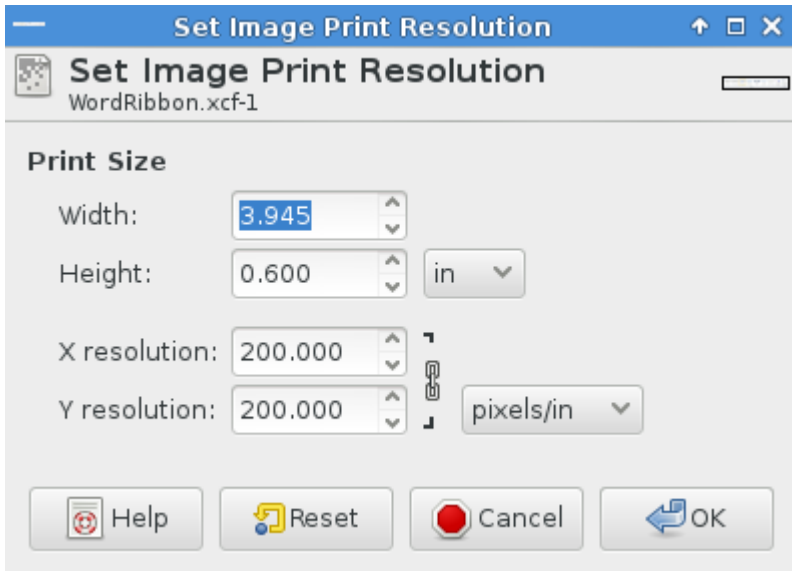
Change the X and Y resolution to 200 DPI or better and see if the width and height dimensions work for your printed page. For screen grabs they generally will.

Artwork should look good at 300 DPI. When I did *The Mahabharata* in twelve volumes I had over 300 illustrations to include. Some were originally color, but most were black and white. I used as many of the full color illustrations as I could on the front and back covers of the books and repeated them as interior illustrations with the rest. They looked OK, but not as good as they did on the covers.

Photos don't look good as interior illustrations, period. These should definitely be 300 DPI or better, but they're going to be printed on the same non-photo quality paper the rest of the pages are on. Black and white photos in conventionally published books are printed on glossy paper that is "tipped in" with the rest of the pages. That's the only way to get good looking photos in a book, other than making all the pages glossy.

Photos of things will look better than photos of people. I discovered this when preparing high quality interior photos for *The Life And Times Of Bhakta Jim*.

Do you have an author photo? Put it on the back cover, and make it in color. It will not look nearly as good on an interior page.

Getting good author photos for my books was a bigger challenge than finding free cover art. Some people look good in photos; I do not. If you ask me to smile for a photo the end result is only good for scaring small children. The only way to get a nice photo of me is to follow me around for a few days and photograph me when I don't know you're doing it. Be prepared to take hundreds of such pictures to get one or two good ones. Both the author photos I use were taken by my wife on European vacations.

The very best author photos are those taken of Clive Cussler. In his Dirk Pitt books he poses with the classic auto he purchased with the proceeds of the previous book in the series. If you have the means to follow his example you should probably do it.

16. Create Space Options

One of the decisions you'll need to make if you publish your book on Create Space is whether to opt for Expanded Distribution. Create Space now lets you opt for this for free now (it used to cost $20). If you do opt for this, your book can be available on websites other than Amazon.com and can also be sold in brick and mortar bookstores. What's not to like?

As it turns out, plenty.

I have opted for Expanded Distribution for a couple of my Create Space books. One book was a public domain title that I was re-issuing and I thought it might be something that could be used in university courses on Hinduism. Expanded distribution, I thought, might make it easier to sell to that market.

The first thing I found out was that expanded distribution increases the minimum price you can charge for your book. This minimum price is for *all* channels, not just the expanded ones. So if you give your book a realistic price you'll get hardly any royalty from your expanded distribution sales and ALL of your customers will pay more for the book.

Did I say ALL your customers? Well, not quite all. Your expanded distribution customers will pay the price you set, but your Amazon customers will likely pay a discounted price, plus they might get free shipping. So there isn't much reason for anyone to buy your book from anyplace but Amazon, and even if they do you'll get hardly any royalties. You'd be better off pricing your book cheaper and only selling it through Amazon.

What about brick and mortar book stores? Well, what about them? Have you seen any lately? They're a dying breed. And even if they were thriving, print on demand books don't work with their business model. Self published books don't either. So basically you might get your book sold at the Barnes and Noble website in addition to Amazon, but Amazon will sell it cheaper. Always.

There is another option for distribution you might consider, which is to have your own e-bookstore. Create Space will give you this for free. Here's one of mine:

https://www.createspace.com/4299888

Now having this doesn't make your book pricier. On the contrary, if you had *only* this you could make your book a couple of bucks cheaper and make the same royalty you would selling it on Amazon. You would just lose all the sales you'd get if you offered the book on Amazon. Plus you'd have to actually get people to find your Store.

Good luck with that.

You can of course have your Store and Amazon too. Just don't expect to sell much through your Store, and don't spend a lot of money putting it together. I did one for my Create Space books using Google Sites, which is free:

https://sites.google.com/site/bhaktajimsbookstore/

I frankly did this only for my own amusement.

Strangely enough, I have sold more of the one book I put in Expanded Distribution through the expanded channel than I have through Amazon.

I sold 8 or 9 copies, total, and made 40 cents on each sale. Since I paid twenty bucks for expanded distribution (again, it's free now) I didn't break even. Public domain Hindu scriptures aren't hot sellers, I guess.

Now if you're already pricing your book several dollars over the minimum price expanded distribution can't hurt. Amazon will still be the cheapest place to buy your book, and you'll get a larger royalty for those sales than from the expanded sales, but whatever sales you get from expanded distribution aren't costing you anything.

There are probably situations where selling books only through your own Create Space eStore makes sense, but I can't think of any.

Create Space introduced another option recently, which is to get a matte book cover instead of a glossy book cover. I like my glossy covers, so I don't plan to use this. But it's nice to have options.

17.   Cool Tricks For Book Nerds

The tricks in this chapter are for those who are comfortable writing their own computer programs. The examples run on Linux and probably could be persuaded to run on Windows and the Mac, too. Doing this is left as an exercise for the student.

You don't need these tricks to publish your own books, but those who can take advantage of them will find that they save time and make the process less tedious.

If you look down on the art of computer programming and the practitioners thereof you should skip this chapter.

No warranty is offered for these code samples. They work for the author, and should work for the reader as well, but if they do not the reader will need to diagnose the problem himself. Remember the title of this book: *Format Your Own Damned Book*. Not *Let's Bug The Author*.

17.1 Strip HTML Utility

The first utility should be copied into a file named **striphtml.py**. You will need Python 2 and Beautiful Soup 3 installed to run it. Beautiful Soup is a Python library that extracts information from the HTML in web pages. Badly formatted web pages are sometimes called "tag soup", hence the name of this library. A version of Beautiful Soup may be included in your Linux distribution.

You can read about Beautiful Soup here:

https://www.crummy.com/software/BeautifulSoup/bs3/documentation.html

What the utility does is take an input HTML file and strip out anything that is not needed to create an XHTML file for an EPUB.

It also inserts a link to a style sheet, generates a table of contents, and inserts a special marker before each H1 tag that can be used later to automatically split up the file into multiple chapter files.

The generated table of contents only works if you split up the chapters into multiple files. If you used a table of contents in your source document the generated TOC will have "None" for all the chapter titles and will be useless. I mostly use this script for my novels, which do not include a Table of Contents in the printed version but need one for the e-book.

```python
#! /usr/bin/env python
from BeautifulSoup import BeautifulSoup

def _attr_name_whitelisted(attr_name,  attr_value):
    if attr_name.lower() == "align" and attr_value.lower() == "center":
        return True
    else:
        return False

# remove these tags, complete with their contents.
blacklist = ["head" ]

# remove attributes from these tags, except
# those whitelisted.
striplist = [ "p",  "h1",  "h2",  "h3" ]

#  Anything not in this list will be replaced with <span>
# tags with no attributes.
whitelist = [
    "p", "br", "pre", "meta",
    "table", "tbody", "thead", "tr", "td",
    "blockquote", "h1", "h2",  "h3",
    "ul", "ol", "li",
    "b", "em", "i", "strong"
    ]

soup = BeautifulSoup(open("input.html"))

print "<html>\n<head>\n"
print "<meta http-equiv=\"CONTENT-TYPE\" content=\"text/html; "
print "charset=UTF-8\">"
print soup.title
print "<link href=\"../Styles/ebook.css\" rel=\"stylesheet\""
print " type=\"text/css\"/>"
print "\n<head>\n<body>"
```

```
print "<h1>Contents</h1>"
print "<ul>"
print "<li><a href=\"TOC_0001.xhtml\">Title Page</a></li>"

i = 1
for chapter in soup.findAll("h1"):
    i = i + 1
    print("<li><a href=\"TOC_" + str(i).zfill(4) + ".xhtml\">")
    print(chapter.string)
    print("</a></li>")

print "</ul>"
print "<hr class=\"sigilChapterBreak\" />"

print "<p class=\"title\">"
print soup.title.string
print "</p>"

print "<p class=\"author\">Author Name</p>"

for tag in soup.findAll():
    if tag.name.lower() in blacklist:
        # blacklisted tags are removed in their entirety
        tag.extract()
    elif tag.name.lower() in striplist:
        tag.attrs = [(a[0], a[1])
        for a in tag.attrs  if _attr_name_whitelisted(a[0],  a[1])]
    elif tag.name.lower() not in whitelist:
        # not a whitelisted tag. I'd like to remove it from the tree
        # and replace it with its children. But that's hard. It's much
        # easier to just replace it with an empty span tag.
        tag.name = "span"
        tag.attrs = []

print(soup.renderContents("utf-8"))
print "</body></html>"
```

The code is available for download here:

https://raw.githubusercontent.com/sugarlabs/ebooktools/master/stripht ml.py

You run it with this script:

```
./striphtml.py
| sed 's_<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0
Transitional//EN">__'
| sed 's/<span>//g'
| sed 's_</span>__g'
```

```
| sed 's_<h1>_<hr class="sigilChapterBreak" /><h1>_'
| sed 's_<hr class="sigilChapterBreak"
/><h1>Contents</h1>_<h1>Contents</h1>_'
| sed 's/<p align="CENTER">/<p style="text-align: center">/' > TOC.xhtml
```

The script actually goes all on one line, but I have split it up into multiple lines to make it fit better on a printed page. Place it in a file named genbook.sh and make that executable. Or download it here:

https://raw.githubusercontent.com/sugarlabs/ebooktools/master/genbook.sh

The script uses the **sed** utility to search and replace things in the HTML that the Python program can't remove itself. Sed is a Linux utility that is part of that operating system. Versions of that utility may be available for lesser operating systems.

To run it, save your manuscript as input.html in the same directory where the Python program and genbook.sh live. Run

```
./genbook.sh
```

and it will create a file **TOC.xhtml** which you may import into Sigil.

For best results, if your printed book has a TOC page you should save a copy of your manuscript under a new name, delete the TOC page from that copy, and then generate your input.html file from that copy. The automatically generated TOC will not work well as an ebook TOC and will interfere with the Python program generating a TOC.

17.2 A Mystery Script

Have a look at this script and try to guess what it does:

```
enchant -l -d en myfile.txt
| sort | uniq -c | sort -nr > myfile-words.txt
```

I'll give you a hint: myfile.txt is a text file containing the full text of the *Bhagavata Purana*, an important Hindu scripture that I wanted to publish on Create Space. You can get that text file here:

http://www.gutenberg.org/ebooks/39442

Download the Plain Text version of the book and replace "myfile.txt" with that file, then run the script.

To understand what the script does, let's take it a step at a time:

1. Enchant is a front end to command line spell checkers provided by all Linux distributions. You can read about it at http://www.abisource.com/projects/enchant/ The command **enchant -l -d en myfile.txt** means "scan myfile.txt using an English dictionary and list out all misspelled words, one on each line.

2. **sort** takes the list and sorts it into ascending sequence.

3. **uniq -c** means remove duplicated words from this sorted list and count how many times the word occurred. The count goes in front of the word in the output.

4. **sort -nr ⟩ myfile-words.txt** takes that list and sorts it into numeric sequence, but in reverse order (high to low), then puts it into file myfile-words.txt.

So when we're done we have a list of all the misspelled words in the *Bhagavata Purana*, sorted from most commonly misspelled to least commonly misspelled. Can you guess why this would be useful?

The *Bhagavata Purana* is full of character names of gods and heroes that don't appear in an English dictionary, and hence would be considered misspellings by enchant. The ones that appear most in the list are the most important characters in the book and vice versa. And it turns out that Libre Office will generate an index for you, if you supply it with a list of the words you want to index. Thus in a few minutes I was able to add a decent index to my Create Space edition of this book, something the original book never had.

18.   A Final Word

I will quote from the last words of Cleopatra to Mark Antony: if you enjoyed it, tell your friends.

Frankie Howerd,

from the movie *Up Pompeii* (1971)

If you found this book helpful please consider leaving a review on the website where you purchased it. Thank you.